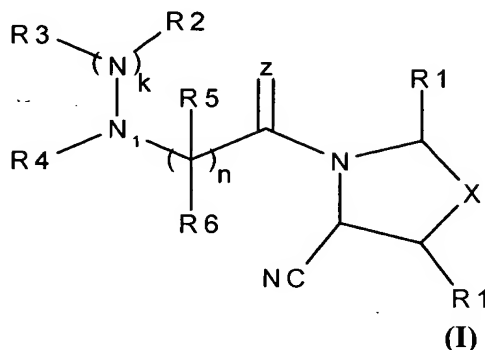


What is claimed is :

1. A compound represented by general formula (I), its stereoisomers, or its pharmaceutically acceptable salts

5



wherein

X is O, S, SO, SO₂, NR₇ or CHR₁ ;

10

n is null or 1;

k is null or 1;

15 Z is O, S, and NR₇ ;

R₁ at two positions are independently selected from hydrogen or a substituted or unsubstituted group selected from linear or branched (C₁-C₁₂)alkyl, (C₂-C₁₂)alkenyl, (C₃-C₇)cycloalkyl, (C₅-C₇)cycloalkenyl, bicycloalkyl, bicycloalkenyl, heterocycloalkyl, aryl, aryloxy, aralkyl, aralkoxy, heteroaryl, heteroaralkyl, heteroaryloxy, heteroaralkoxy, wherein one or more heteroatoms are independently selected from O, N or S;

20

R₂, R₃, R₄ and R₇ are independently selected from hydrogen, perhaloalkyl, -

25

(CO)NR₈R₉, -(CO)R₈, -(CO)OR₈, -SO₂R₈, -SOR₈, substituted or unsubstituted groups selected from linear or branched (C₁-C₁₂)alkyl, (C₂-C₁₂)alkenyl, (C₃-

C₇)cycloalkyl, (C₅-C₇)cycloalkenyl, bicycloalkyl, tricycloalkyl amidino bicycloalkenyl, heterocycloalkyl, aryl, aralkyl, heteroaryl, heteroaralkyl, wherein one or more heteroatoms are independently selected from O, N or S;

5 R5 and R6 are independently selected from by hydrogen or a substituted or unsubstituted group selected from linear or branched (C₁-C₁₂)alkyl, (C₂-C₁₂)alkenyl, (C₃-C₇)cycloalkyl, (C₅-C₇)cycloalkenyl, bicycloalkyl, bicycloalkenyl, heterocycloalkyl, aryl, aralkyl, heteroaryl, heteroaralkyl, wherein one or more heteroatoms are independently selected from O, N or S;

10

R8 and R9 are independently selected from hydrogen or a substituted and unsubstituted group selected from linear or branched (C₁-C₁₂)alkyl, alkoxyaryl, alkoxyalkyl, alkoxycycloalkyl, alkoxyaryl, perhaloalkyl, (C₂-C₁₂)alkenyl, (C₃-C₇) cycloalkyl, perhalocycloalkyl, haloheterocycloalkyl, cyanoheterocycloalkyl, 15 perhaloheterocycloalkyl, (C₅-C₇) cycloalkenyl, bicycloalkyl, bicycloalkenyl, heterocycloalkyl, aryl, aralkyl, heteroaryl, heteroaralkyl, perhaloaryl, perhaloheteroaryl;

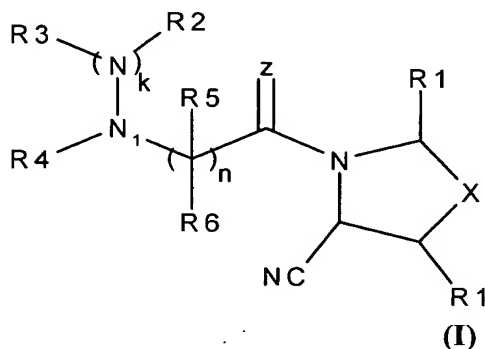
wherein in the groups represented by R1, R2, R3, R4, R5, R6, R7, R8 and R9 when 20 substituted, the substituents are optionally and independently bridged by -(CO)-, -CH₂(CO)-, -(CO)O-, -(CO)NH-, -CH₂(CO)NH-, -NH-, -NR₈-, -O-, -S-, -(SO)-, -(SO₂)-, -(SO₂)NH-, -NHCH₂(CO)NH-, -NH(SO₂)-, -O(CO)- or -NH(CO)-; and are selected from halogen, hydroxy, nitro, cyano, amino, oxo, oxime, unsubstituted or substituted by R10 for the groups selected from linear or branched (C₁-C₈) alkyl, (C₃- 25 C₇)cycloalkyl, tricycloalkyl, alkylcycloalkyl, alkoxyalkyl, perhaloalkyl, perhalocycloalkyl, aryl, aralkyl, alkylaryl, alkylheteroaryl, aralkoxylalkyl, perhaloaryl, alkylheterocycloalkyl, heterocycloalkyl, perhaloheterocycloalkyl, heteroaryl, heteroaralkyl, alkylaryl, perhaloheteroaryl, acyl, acyloxy, acylamino, alkylamino, arylamino, aralkoxy, alkoxyalkyl, alkylthio, thioalkyl, arylthio, thioaryl, 30 carboxylic acid or its derivatives, or sulfonic acid or its derivatives wherein the groups / substituents present on same or adjacent atoms such as carbon or nitrogen; together optionally and independently may form a five or a six or a seven membered ring

optionally containing one or more double bonds and optionally containing one or more heteroatoms selected from O, N or S;

and wherein

- 5 R10 is independently selected from halogens, hydroxy, nitro, cyano, amino, alkoxy carbonyl alkyl, oxo or oxime, and pharmaceutically usable hydrates and salts thereof; with the proviso that,
if k is null, then R4 and R6 together form an optionally six or seven membered ring,
which optionally contains two to three heteroatoms independently selected from O, S
10 and NR7 with R1 as hydrogen, and N₁ is attached to hydrogen.

2. A compound represented by general formula (I), its stereoisomers, or its pharmaceutically acceptable salts



wherein

- X, n, k, Z, R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈ and R₉ are as defined in claim 1 and wherein
in the groups represented by R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈ and R₉ when substituted,
20 the substituents are optionally and independently bridged by -(CO)-, -CH₂(CO)-, -(CO)O-, -(CO)NH-, -CH₂(CO)NH-, -NH-, -NR₈-, -O-, -S-, -(SO)-, -(SO₂)-, -(SO₂)NH-, -NHCH₂(CO)NH-, -NH(SO₂)-, -O(CO)- or -NH(CO)-; and are selected from hydrogen, halogen, hydroxy, nitro, cyano, amino, oxo, oxime, unsubstituted or substituted by R10 for the groups selected from linear or branched (C₁-C₈) alkyl, (C₃-
25 C₇)cycloalkyl, tricycloalkyl, alkylcycloalkyl, alkoxyalkyl, perhaloalkyl, perhalocycloalkyl, aryl, aralkyl, alkylaryl, alkylheteroaryl, aralkoxylalkyl,

perhaloaryl, alkylheterocycloalkyl, heterocycloalkyl, perhaloheterocycloalkyl, heteroaryl, heteroaralkyl, alkylaryl, perhaloheteroaryl, acyl, acyloxy, acylamino, alkylamino, arylamino, aralkoxy, alkoxyalkyl, alkylthio, thioalkyl, arylthio, thioaryl, carboxylic acid or its derivatives, or sulfonic acid or its derivatives wherein the groups
5 / substituents present on same or adjacent atoms such as carbon or nitrogen, together optionally and independently may form a five or a six or a seven membered ring optionally containing one or more double bonds and optionally containing one or more heteroatoms selected from O, N or S;

10 and wherein

R10 is independently selected from -SO₂NH₂, -SO₂NH alkyl, -SO₂NH aryl and pharmaceutically usable hydrates and salts thereof;

with the proviso that,

15 if k is null, then R4 and R6 together form an optionally six or seven membered ring, which optionally contains two to three heteroatoms independently selected from O, S and NR7 with R1 as hydrogen, and N₁ is attached to hydrogen.

3. The compound as claimed in claim 1, wherein the said compound is
20 selected from the group consisting of :

- a) [2-Cyano-1-(piperazine-2-yl)-carbonyl pyrrolidine bis-trifluoroacetate],
- b) [2-Cyano-1-(4-isopropyl-2-piperazinyl)-carbonyl-pyrrolidine bis
25 trifluoroacetate],
- c) 1-[1-Oxo-2-((1-phenyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- d) 1-[1-Oxo-2-(1-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
30
- e) 3-[1-Oxo-2-((2-(1,1-dimethyl ethyl oxy carbonyl))hydrazino)]ethyl-4-cyano thiazolidine,
- f) 1-[1-Oxo-2-((2-(1,1-dimethylethoxy carbonyl))-1-phenyl hydrazino)]ethyl-
35 2-cyano pyrrolidine,
- g) 1-[1-Oxo-2-((2-(1,1-dimethylethyl oxy carbonyl))hydrazino)]ethyl-2-cyano pyrrolidine,

- h) 1-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 5 i) 3-[1-Oxo-2-((1-phenyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- j) 1-[1-Oxo-2-(1-(2-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 10 k) 1-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- l) 1-[1-Oxo-2-((1-(1-methyl)ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 15 m) 1-[1-Oxo-2-((2,2-diethyl)-hydrazino)]ethyl-2-cyano thiazolidine,
- n) 1-[1-Oxo-2-((1-ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 20 o) 3-[1-Oxo-2-(1-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- p) 3-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 25 q) 3-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- r) 1-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 30 s) 3-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- t) 1-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 35 u) 3-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- v) 1-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 40 w) 3-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- x) 1-[1-Oxo-2-((1-Phenyl sulphonyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 45 y) 3-[1-Oxo-2-((1-(4-methyl)cyclohexyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,

- z) 1-[1-Oxo-2-((4-Methyl)cyclohexyl)hydrazino]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 5 aa) 1-[1-Oxo-2-(1-(2-Pyridyl)-hydrazino)]ethyl-2-cyano pyrrolidine bis-trifluoroacetate,
- bb) 3-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate,
- 10 cc) 3-[1-Oxo-2- ((1-(4-methyl) cyclohexyl)-hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate,
- dd) 1-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-2-cyano pyrrolidine trifluoroacetate,
- 15 ee) [4-Cyano-3-(1-isopropylhydrazino)carbonyl thiazolidine hydrochloride],
- ff) [2-Cyano-1-(1-cyclohexyl hydrazino)carbonyl pyrrolidine hydrochloride],
- 20 gg) [4-Cyano-3-(1-cyclohexylhydrazino)carbonyl thiazolidine hydrochloride],
- hh) 1-[1-Oxo-2- (2-cyclohexyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,
- 25 ii) [4-Cyano-3-(1-phenyl hydrazino) carbonyl thiazolidine trifluoroacetate],
- jj) 3-[1-Oxo-2- (1-cyclohexyl-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine hydrochloride,
- 30 kk) 1-[1-Oxo-2-(4-methylcyclohexyl)hydrazino]ethyl-2-cyanopyrrolidine trifluoroacetate,
- ll) 1-[1-Oxo-2-(1-cyclohexyl-2-isopropyl)hydrazino]ethyl-2-cyano pyrrolidine,
- 35 mm) 1-[1-Oxo-2-(1-(4-methylcyclohexylmethyl) hydrazino)]ethyl-2-cyanopyrrolidine trifluoroacetate,
- 40 nn) 1-[1-Oxo-2- (4-chlorophenyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,
- oo) 1-[1-Oxo-2-isopropyl-2-hydrazino] ethyl-2-cyano pyrrolidine trifluoroacetate,
- 45 pp) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-ethyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,

- qq) 3-[1-Oxo-2- (1-(4-morpholinocarbonyl) hydrazino) ethyl]-4-cyanothiazolidine trifluoroacetate,
- 5 rr) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- ss) 1-[1-Oxo-2- [(1-cyclohexyl)-2-(2-cyano-1-pyrrolidino acetyl)] hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,
- 10 tt) 3-[1-Oxo-2- (1,2-bis- (2-(2-pyridyl) ethylaminocarbonyl) hydrazino)] ethyl-4-cyano thiazolidine bis trifluoroacetate,
- uu) 3-[1-Oxo-2- (1-(4-tert-butyl cyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 15 vv) 1-[1-Oxo-2- (1-tetralinyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,
- ww) 3-[1-Oxo-2- (1-(4-tertbutylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 xx) 1-[1-Oxo-2- (1-cyclohexyl)-2-(4-cyano-3-thiazolidino acetyl)] hydrazino] ethyl-2-cyano pyrrolidine,
- yy) 3-[1-Oxo-2- (1-isopropyl-4-piperidiny] hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate,
- zz) 3-[1-Oxo-2- (1-(1-(4-cyanophenylmethyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine bis trifluoroacetate,
- 30 aaa) 3-[1-Oxo-2-[1-(4-methylcyclohexyl)-2-(1-(3-pyridinylmethyl)-4-piperidiny)]hydrazino]ethyl-4-cyanothiazolidine,
- bbb) 3-[1-Oxo-2- [1-(4-methylcyclohexyl)-2-(1-isopropyl-4-piperidiny)] hydrazino] ethyl-4-cyanothiazolidine,
- 35 ccc) 3-[1-Oxo-2- (1-(1-(4-methylphenylsulphonyl)-4-piperidiny)-hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- ddd) 3-[1-Oxo-2- [1-methyl-2- (1-(4-methylphenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- eee) 3-[1-Oxo-2- (1-(1-(3-pyridinemethyl)-4-piperidiny] hydrazino)] ethyl-4-cyanothiazolidine tris trifluoroacetate,
- 45 fff) 3-[1-Oxo-2- [1-methyl-2- (1-(4-cyanophenylmethyl) piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis trifluoroacetate,

- ggg) 3-[1-Oxo-2- [1-methyl-2- (1-(3-pyridinylmethyl)-piperidin-4-yl)]
hydrazino] ethyl-4-cyanothiazolidine tris trifluoroacetate,
- 5 hhh) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine trifluoro acetate,
- iii) 3-[1-Oxo-2- (1-(1-(4-nitrophenylmethyl)-piperidin-4-yl) hydrazino] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 10 jjj) 3-[1-Oxo-2- [1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)] hydrazino]
ethyl- 4-cyanothiazolidine trifluoroacetate,
- kkk) 3-[1-Oxo-2- (1-(1-norcamphoranyl) hydrazino)] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 15 ll) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine
trifluoroacetate,
- mmm) 3-[1-Oxo-2-[1-(1-(4-methylcyclohexyl carbonyl)-piperidin-4-yl)]
20 hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- nnn) 3-[1-Oxo-2-(1-(1-acetyl)-piperidin-4-yl)hydrazino] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 25 ooo) 1,1-Dioxo-3-[1-oxo-2-(1-(4-methylcyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine trifluoroacetate,
- ppp) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine,
- 30 qqq) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine,
- rrr) 3-[1-Oxo-2-(1-(1-(2,3 dichlorophenyl carbonyl)-piperidin-4-yl) hydrazino)]
35 ethyl-4-cyanothiazolidine trifluoroacetate,
- sss) 3-[1-Oxo-2-[1-methyl-2-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)]-
hydrazino] ethyl-4-cyanothiazolidine,
- 40 ttt) 3-[1-Oxo-2-(1-(4-piperidinyl) hydrazino)]ethyl-4-cyanothiazolidine bis
trifluoroacetate,
- uuu) [1-Oxo-2-(1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)-hydrazino)]
ethyl -2- cyanopyrrolidine trifluoroacetate,
- 45 vvv) 3-[1-Oxo-2-(1-(4-methylcyclohexyl)-2-acetyl) hydrazino]ethyl-4-
cyanothiazolidine,

- www) 3-[1-Oxo-2-(1-(1-adamantanyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 5 xxx) 3-[1-Oxo-2-(1-(1-(tert-butyl carbonyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- yyy) 3-[1-Oxo-2-(1-(1-(5-trifluoromethyl-2-pyridinyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyano thiazolidine bis trifluoroacetate,
- 10 zzz) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate,
- aaaa) 3-[1-Oxo-2- (1-(3,3,5-trimethyl cyclohexyl)-hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 15 bbbb) 3-[1-Oxo-2-(1-isopropyl-2-ethyl)-hydrazino]-ethyl-4-cyanothiazolidine trifluoroacetate,
- cccc) 3-[1-Oxo-2-[1-(1-phenylmethyl-piperidin-4-yl)]-hydrazino]-ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 dddd) 3-[1-Oxo-2-(1-(1-(4-chlorophenyl sulphonylamino-4-cyclohexyl) hydrazino)]ethyl-4-cyanothiazolidine trifluoroacetate,
- eeee) 3-[1-Oxo-2-(pyridazin-1-yl)] ethyl-4-cyanothiazolidine,
- 25 ffff) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- gggg) 3-[1-oxo-2-[1-(1(morpholinocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyano-thiazolidine trifluoroacetate,
- 30 hhhh) 3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- iiii)3-[1-oxo-2-[1-(1(methylsulphonyl)-piperidin-4-yl)-2-isopropyl]hydrazino]ethyl- 4-cyanothiazolidine trifluoroacetate,
- 35 jjjj)3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 40 kkkk) 3-[1-oxo-2-[1-(1-(morpholinocarbonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- llll)3-[1-oxo-2-[1-(1-(N-ethylmethylaminocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 45 mmmm) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,

- nnnn) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)aminocyclohexan-4-yl)]hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 5 oooo) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)aminocyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- pppp) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 10 qqqq) 3-[1-oxo-2-[(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl -4-cyanothiazolidine tris-trifluoroacetate,
- rrrr) 3-[1-oxo-2-[1-(1-(trimethyl acetamido)cyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 15 ssss) 3-[1-oxo-2-[1-(1-(methanesulphonyl)aminocyclohexan-4-yl)-2-ethyl]hydrazino] ethyl-4-cyanothiazolidine,
- tttt) 3-[1-oxo-2-[(1-(trimethyl acetamido) cyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 uuuu) 3-[1-oxo-2-[1-(1-(2-oxo-2-(4-cyanophenyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- vvvv) 3-[1-oxo-2-[1-(4-fluorobenzoyl)aminocyclohexan-4-yl)]hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 25 wwww) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]-2-ethylhydrazino] ethyl-4-cyanothiazolidine tris-hydrochloride,
- 30 xxxx) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-trifluorophenyl)aminoethyl)piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- yyyy) 3-[1-oxo-2-[1-(1-(2-oxo-2(-adamant-1-yl)amino ethyl)piperidin-4-yl)]hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,
- 35 zzzz) 3-[1-oxo-2-[1-(1-(2-oxo-2(2,3 dihydrobenzo(1,4)dioxan-6-yl)aminoethyl)piperidin-4-yl)] hydrazino] ethyl-4-cyano-thiazolidine bis-trifluoroacetate,
- 40 aaaaa) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-chlorophenyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,
- bbbb) 3[2-oxo-2-[1-(1-(2-oxo-2(pyrimidin-2-yl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl -4-cyanothiazolidine tris-trifluoroacetate,
- 45 ccccc) 3-[1-oxo-2-[1-(1-(2-oxo-2(morpholin-4-yl)ethyl)piperidin-4-yl)]hydrazino] ethyl- 4-cyanothiazolidine bis-trifluoroacetate,

- dddd) 3-[1-oxo-2-[1-(1-(2-oxo-2-(cyclopropyl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 5 eeeee) 3-[1-oxo-2-[1-(1-(2-cyanobiphenyl-4-yl)methyl)piperidine-4-yl]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- fffff) 3-[1-oxo-2-[1-(1-(1-oxo-2-(morpholin-4-yl)ethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 10 ggggg) 3-[1-oxo-2-[1-(4-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine tris-trifluoroacetate,
- 15 hhhhh) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-cyanophenyl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- iiiii) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-chlorophenyl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 20 jjjjj) 3-[1-oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)hydrazino)]ethyl-4-cyanothiazolidine hydrochloride and
- kkkkk) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidine-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trihydrochloride.
- 25 4. The compound as claimed in claim 1, wherein the said compound is selected from the group consisting of :
- 30 lllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl) piperidin-4-yl)) hydrazino]ethyl(s)-(+)-4-cyanothiazolidine tris-trifluoroacetate
- 35 mmmmm) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-bromothiazol-2-yl)aminoethyl) piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- nnnnn) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4,5-dimethylthiazole-2-yl) aminoethyl) piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- 40 ooooo) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-cyanopyridin-2-yl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- 45 ppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloropyridyl-3-yl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- qqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-fluorobenzyl)amino ethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate

- rrrrr) 3-[1-oxo-2-(1-(1-phenoxyethyl)piperidin-4-yl)hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 5 sssss) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)amino ethyl) piperidin-4-yl))hydrazino] ethyl-2-cyanopyrrolidine, tris-trifluoroacetate.
- ttttt) 3-[1-oxo-2-(1-(1-(2-oxo-2-cyclohexyl)aminoethyl)piperidin-4-yl)hydrazino]ethyl-4-cyanothiazoline, bis-trifluoroacetate.
- 10 uuuuu) 3-[(1-oxo-2-(1-(1-(2-oxo-2-(3-isopropoxy propan-1-yl)amino ethyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- vvvvv) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-(thiophene-2-yl) ethyl) aminoethyl) piperidine-4-yl))hydrazino]ethyl - 4- cyanothiazolidine, bis-trifluoroacetate.
- 15 wwww) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3-chloro-4-fluoro-phenyl)aminoethyl) piperidine-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 20 xxxxx) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-ethoxycarbonyl methyl thiazole-2-yl) amino ethyl) piperidine-4-yl)) hydrazino] ethyl -4-cyanothiazolidine, tris-trifluoroacetate.
- 25 yyyyy) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3,4-methelenedioxyphenyl) amino ethyl) piperidine -4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- zzzzz) 3-[1-oxo-2-(1-(1-(3-oxo-3-cyclopropyl)amino propyl)piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate
- 30 aaaaa) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl) amino ethyl) piperidine-4-yl)-2-methoxycarbonyl) hydrazino]ethyl-4-cyanothiazolidine, trihydrochloride.
- 35 bbbbbb) 3-[1-oxo-2-(1-(1-(2-oxo-2-(thiazole-2-yl)-aminoethyl)piperidin-4-yl))hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- cccccc) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-methoxyethyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis -trifluoroacetate.
- 40 ddddd) 3-[1-oxo-2-(1-(1-(2-oxo-2-(pyridin-2-yl)aminoethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- eeeeee) 3-[1-oxo-2-(1-(1-(3-pyridylacetyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 45 fffff) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)piperidine-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

gggggg) 3-[1-oxo-2-(1-(1-(5-methylpyrazine-2-ylcarbonyl)amino-4-cyclohexyl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

5 hhhhhh) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-cyano pyridin-2-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

iiiiii) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloro pyridin-3-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

10

jjjjjj) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-amino sulphonyl phenyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.

15 kkkkkk) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-chlorophenyl)aminoethyl)piperidin-4-yl))ydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.

llllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)aminoethyl)piperidine-4-yl)) hydrazine]ethyl-4-cyanothiazolidine, trihydrochloride.

20

mmmmmm) 3-[1-oxo-2-(1-(1-(2-(4,5-dimethylthiazole-2-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

25 nnnnnn) 3-[1-oxo-2-(1-(1-(2-cyclopropyl-1-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride and

oooooo) 3-[1-oxo-2-(2-ter-butyloxycarbonyl) hydrazino] ethyl-4-cyanothiazolidine.

30 5. The compound as claimed in claim 2, wherein the said compound is

pppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-amino)ethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate and

35 qqqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-aminosulphonylphenyl) aminoethyl)piperidin-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

40 6. A pharmaceutical composition comprising compound of formula (1) as defined in claim 1, its stereoisomers, or its pharmaceutically acceptable salts in association with a pharmaceutically acceptable carrier, diluent or excepiant.

45 7. A pharmaceutical composition comprising compound of formula (1) as defined in claim 2, its stereoisomers, or its pharmaceutically acceptable salts in association with a pharmaceutically acceptable carrier, diluent or excepiant.

8. The pharmaceutical composition as claimed in claim 6, wherein the said compound is selected from the group consisting of :

- 5 a) [2-Cyano-1-(piperazine-2-yl)-carbonyl pyrrolidine bis-trifluoroacetate],
- b) [2-Cyano-1-(4-isopropyl-2-piperazinyl)-carbonyl-pyrrolidine bis trifluoroacetate],
- c) 1-[1-Oxo-2-((1-phenyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 10 d) 1-[1-Oxo-2-(1-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- e) 3-[1-Oxo-2-((2-(1,1-dimethyl ethyl oxy carbonyl))hydrazino)]ethyl-4-cyano thiazolidine,
- 15 f) 1-[1-Oxo-2-((2-(1,1-dimethylethyloxy carbonyl))-1-phenyl hydrazino)]ethyl-2-cyano pyrrolidine,
- g) 1-[1-Oxo-2-((2-(1,1-dimethylethyl oxy carbonyl))hydrazino)]ethyl-2-cyano pyrrolidine,
- 20 h) 1-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- i) 3-[1-Oxo-2-((1-phenyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 25 j) 1-[1-Oxo-2-(1-(2-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- k) 1-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 30 l) 1-[1-Oxo-2-((1-(1-methyl)ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 35 m) 1-[1-Oxo-2-((2,2-diethyl)-hydrazino)]ethyl-2-cyano thiazolidine,
- n) 1-[1-Oxo-2-((1-ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- o) 3-[1-Oxo-2-(1-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 40 p) 3-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 45 q) 3-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,

- r) 1-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 5 s) 3-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- t) 1-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 10 u) 3-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- v) 1-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 15 w) 3-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- x) 1-[1-Oxo-2-((1-Phenyl sulphonyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 20 y) 3-[1-Oxo-2-((1-(4-methyl)cyclohexyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- z) 1-[1-Oxo-2-((4-Methyl)cyclohexyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 25 aa) 1-[1-Oxo-2-(1-(2-Pyridyl)-hydrazino)]ethyl-2-cyano pyrrolidine bis-trifluoroacetate,
- 30 bb) 3-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate ,
- cc) 3-[1-Oxo-2- ((1-(4-methyl) cyclohexyl)-hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate,
- 35 dd) 1-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-2-cyano pyrrolidine trifluoroacetate,
- ee) [4-Cyano-3-(1-isopropylhydrazino)carbonyl thiazolidine hydrochloride],
- 40 ff) [2-Cyano-1-(1-cyclohexyl hydrazino)carbonyl pyrrolidine hydrochloride],
- gg) [4-Cyano-3-(1-cyclohexylhydrazino)carbonyl thiazolidine hydrochloride],
- 45 hh) 1-[1-Oxo-2- (2-cyclohexyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,

- ii) [4-Cyano-3-(1-phenyl hydrazino) carbonyl thiazolidine trifluoroacetate],
- jj) 3-[1-Oxo-2- (1-cyclohexyl-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine
hydrochloride,
- 5 kk) 1-[1-Oxo-2-(4-methylcyclohexyl)hydrazino]ethyl-2-cyanopyrrolidine
trifluoroacetate,
- 10 ll) 1-[1-Oxo-2-(1-cyclohexyl-2-isopropyl)hydrazino]ethyl-2-cyano pyrrolidine,
- mm) 1-[1-Oxo-2-(1-(4-methylcyclohexylmethyl) hydrazino)]ethyl-2-
cyanopyrrolidine trifluoroacetate,
- 15 nn) 1-[1-Oxo-2- (4-chlorophenyl) hydrazino] ethyl-2-cyanopyrrolidine
trifluoroacetate,
- oo) 1-[1-Oxo-2-isopropyl-2-hydrazino] ethyl-2-cyano pyrrolidine trifluoroacetate,
- 20 pp) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-ethyl) hydrazino] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 25 qq) 3-[1-Oxo-2- (1-(4-morpholinocarbonyl) hydrazino) ethyl]-4-cyanothiazolidine
trifluoroacetate,
- rr) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-isopropyl) hydrazino] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 30 ss) 1-[1-Oxo-2- [(1-cyclohexyl)-2-(2-cyano-1-pyrrolidino acetyl)] hydrazino] ethyl-
2-cyanopyrrolidine trifluoroacetate ,
- 35 tt) 3-[1-Oxo-2- (1,2-bis- (2-(2-pyridyl) ethylaminocarbonyl) hydrazino)] ethyl-4-
cyano thiazolidine bis trifluoroacetate ,
- uu) 3-[1-Oxo-2- (1-(4-tert-butyl cyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine
trifluoro acetate,
- 40 vv) 1-[1-Oxo-2- (1-tetralinyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate ,
- ww) 3-[1-Oxo-2- (1-(4-tertbutylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine
trifluoroacetate ,
- 45 xx) 1-[1-Oxo-2- (1-cyclohexyl)-2-(4-cyano-3-thiazolidino acetyl)] hydrazino] ethyl-
2-cyano pyrrolidine ,
- yy) 3-[1-Oxo-2- (1-isopropyl-4-piperidiny) hydrazino)] ethyl-4-cyano thiazolidine
trifluoroacetate,

- zz) 3-[1-Oxo-2- (1-(1-(4-cyanophenylmethyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine bis trifluoroacetate ,
- 5 aaa) 3-[1-Oxo-2-[1-(4-methylcyclohexyl)-2-(1-(3-pyridinylmethyl)-4-piperidinyl)]hydrazino]ethyl-4-cyanothiazolidine,
- bbb) 3-[1-Oxo-2- [1-(4-methylcyclohexyl)-2-(1-isopropyl-4-piperidinyl)] hydrazino] ethyl-4-cyanothiazolidine,
- 10 ccc) 3-[1-Oxo-2- (1-(1-(4-methylphenylsulphonyl)-4-piperidinyl)-hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- ddd) 3-[1-Oxo-2- [1-methyl-2- (1-(4-methylphenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 15 eee) 3-[1-Oxo-2- (1-(1-(3-pyridinemethyl)-4-piperidinyl) hydrazino)] ethyl-4-cyanothiazolidine tris trifluoroacetate,
- 20 fff) 3-[1-Oxo-2- [1-methyl-2- (1-(4-cyanophenylmethyl) piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis trifluoroacetate,
- ggg) 3-[1-Oxo-2- [1-methyl-2- (1-(3-pyridinylmethyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine tris trifluoroacetate,
- 25 hhh) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoro acetate,
- iii) 3-[1-Oxo-2- (1-(1-(4-nitrophenylmethyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 30 jjj) 3-[1-Oxo-2- [1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 35 kkk) 3-[1-Oxo-2- (1-(1-norcamphoranyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- lll) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate,
- 40 mmm) 3-[1-Oxo-2-[1-(1-(4-methylcyclohexyl carbonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- nnn) 3-[1-Oxo-2-(1-(1-acetyl)-piperidin-4-yl)hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 45 ooo) 1,1-Dioxo-3-[1-oxo-2-(1-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,

- ppp) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine,
- 5 qqq) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine,
- rrr) 3-[1-Oxo-2-(1-(1-(2,3-dichlorophenyl carbonyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 10 sss) 3-[1-Oxo-2-[1-methyl-2-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)]-hydrazino] ethyl-4-cyanothiazolidine
- ttt) 3-[1-Oxo-2-(1-(4-piperidinyl) hydrazino)]ethyl-4-cyanothiazolidine bis trifluoroacetate ,
- 15 uuu) [1-Oxo-2-(1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)-hydrazino)] ethyl -2- cyanopyrrolidine trifluoroacetate,
- 20 vvv) 3-[1-Oxo-2-(1-(4-methylcyclohexyl)-2-acetyl) hydrazino]ethyl-4-cyanothiazolidine,
- www) 3-[1-Oxo-2-(1-(1-adamantanyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 25 xxx) 3-[1-Oxo-2-(1-(1-(tert-butyl carbonyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- yyy) 3-[1-Oxo-2-(1-(1-(5-trifluoromethyl-2-pyridinyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyano thiazolidine bis trifluoroacetate,
- 30 zzz) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate,
- aaaa) 3-[1-Oxo-2- (1-(3,3,5-trimethyl cyclohexyl)-hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 35 bbbb) 3-[1-Oxo-2-(1-isopropyl-2-ethyl)-hydrazino]-ethyl-4-cyanothiazolidine trifluoroacetate,
- cccc) 3-[1-Oxo-2-[1-(1-phenylmethyl-piperidin-4-yl)]-hydrazino]-ethyl-4-cyanothiazolidine trifluoroacetate,
- 40 dddd) 3-[1-Oxo-2-(1-(1-(4-chlorophenyl sulphonylamino-4-cyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 45 eeee) 3-[1-Oxo-2-(pyridazin-1-yl)] ethyl-4-cyanothiazolidine,
- ffff) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate ,

- gggg) 3-[1-oxo-2-[1-(1(morpholinocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyano- thiazolidine trifluoroacetate,
- 5 hhhh) 3-[1-oxo-2-[1-(1-(methysulphonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- iiii) 3-[1-oxo-2-[1-(1(methysulphonyl)-piperidin-4-yl)-2-isopropyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 10 jjjj) 3-[1-oxo-2-[1-(1-(methysulphonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- kkkk) 3-[1-oxo-2-[1-(1-(morpholinocarbonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 15 llll) 3-[1-oxo-2-[1-(1-(N-ethylmethylaminocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 mmmm) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)-piperidin-4-yl)]hydrazino]ethyl- 4-cyanothiazolidine trifluoroacetate,
- nnnn) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)aminocyclohexan-4-yl)]hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 25 oooo) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)aminocyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- pppp) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 30 qqqq) 3-[1-oxo-2-[(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl -4-cyanothiazolidine tris-trifluoroacetate,
- 35 rrrr) 3-[1-oxo-2-[1-(1-(trimethyl acetamido)cyclohexan-4-yl)]hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- ssss) 3-[1-oxo-2-[1-(1-(methanesulphonyl)aminocyclohexan-4-yl)-2-ethyl]hydrazino] ethyl-4-cyanothiazolidine ,
- 40 tttt) 3-[1-oxo-2-[(1-(trimethyl acetamido) cyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- uuuu) 3-[1-oxo-2-[1-(1-(2-oxo-2-(4-cyanophenyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 45 vvvv) 3-[1-oxo-2-[1-(4-fluorobenzoyl)aminocyclohexan-4-yl)]hydrazino] ethyl-4- cyanothiazolidine trifluoroacetate,

- www) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]-2-ethylhydrazino] ethyl-4-cyanothiazolidine tris-hydrochloride,
- 5 xxxx) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-trifluorophenyl)aminoethyl)piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- yyyy) 3-[1-oxo-2-[1-(1-(2-oxo-2(-adamant-1-yl)amino ethyl)piperidin-4-yl)] hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,
- 10 zzzz) 3-[1-oxo-2-[1-(1-(2-oxo-2(2,3-dihydrobenzo(1,4)dioxan-6-yl)aminoethyl) piperidin-4-yl)] hydrazino] ethyl-4-cyano-thiazolidine bis-trifluoroacetate,
- 15 aaaaa) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-chlorophenyl)aminoethyl)piperidin-4-yl)] hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,
- bbbb) 3[2-oxo-2-[1-(1-(2-oxo-2(pyrimidin-2-yl)aminoethyl)piperidin-4-yl)] hydrazino] ethyl -4-cyanothiazolidine tris-trifluoroacetate,
- 20 ccccc) 3-[1-oxo-2-[1-(1-(2-oxo-2(morpholin-4-yl)ethyl)piperidin-4-yl)] hydrazino] ethyl- 4-cyanothiazolidine bis-trifluoroacetate,
- dddd) 3[1-oxo-2-[1-(1-(2-oxo-2-(cyclopropyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 25 eeeee) 3-[1-oxo-2-[1-(1-(2-cyanobiphenyl-4-yl)methyl)piperidine-4-yl]hydrazino]ethyl- 4-cyanothiazolidine bis-trifluoroacetate,
- 30 fffff) 3-[1-oxo-2-[1-(1-(1-oxo-2-(morpholin-4-yl)ethyl)piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate ,
- ggggg) 3-[1-oxo-2-[1-(4 -(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)amino cyclohex-1-yl)] hydrazino]ethyl-4-cyanothiazolidine tris-trifluoroacetate,
- 35 hhhhh) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-cyanophenyl)aminoethyl)aminocyclohex-1-yl)] hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate ,
- iiii) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-chlorophenyl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 40 jjjjj) 3-[1-oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)hydrazino)]ethyl-4-cyanothiazolidine hydrochloride and
- 45 kkkkk) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl) piperidine-4-yl)]hydrazino]ethyl-4-cyanothiazolidinetrihydrochloride.

9. The pharmaceutical composition as claimed in claim 6, wherein the said compound is selected from the group consisting of :

5 lllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl) piperidin-4-yl)) hydrazino]ethyl(s)-(+)-4-cyanothiazolidine tris-trifluoroacetate

10 mmmmm) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-bromothiazol-2-yl)aminoethyl) piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

nnnnn) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4,5-dimethylthiazole-2-yl) aminoethyl) piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

15 ooooo) 3-[1-oxo-2-(1-(1-(2-oxo-2(5-cyanopyridin-2-yl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

ppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloropyridyl-3-yl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

20 qqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-fluorobenzyl)amino ethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate

25 rrrrr) 3-[1-oxo-2-(1-(1-phenoxyethyl)piperidin-4-yl)hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

sssss) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)amino ethyl) piperidin-4-yl))hydrazino] ethyl-2-cyanopyrrolidine, tris-trifluoroacetate.

30 ttttt) 3-[1-oxo-2-(1-(1-(2-oxo-2-cyclohexyl)aminoethyl)piperidin-4-yl)hydrazino]ethyl-4-cyanothiazoline, bis-trifluoroacetate.

uuuuu) 3-[(1-oxo-2-(1-(1-(2-oxo-2-(3-isopropoxy propan-1-yl)amino ethyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

35 vvvvv) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-(thiophene-2-yl) ethyl) aminoethyl) piperidine-4-yl))hydrazino]ethyl - 4- cyanothiazolidine, bis-trifluoroacetate.

40 wwwww) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3-chloro-4-fluoro-phenyl)aminoethyl) piperidine-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

xxxxx) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-ethoxycarbonyl methyl thiazole-2-yl) amino ethyl) piperidine-4-yl)) hydrazino] ethyl -4-cyanothiazolidine, tris-trifluoroacetate.

45 yyyyy) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3,4-methelenedioxyphenyl) amino ethyl) piperidine -4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

- zzzzz) 3-[1-oxo-2-(1-(1-(3-oxo-3-cyclopropyl)amino propyl)piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate
- 5 aaaaaa) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl) amino ethyl) piperidine-4-yl)-2-methoxycarbonyl) hydrazino]ethyl-4-cyanothiazolidine, trihydrochloride.
- 10 bbbbbb) 3-[1-oxo-2-(1-(1-(2-oxo-2-(thiazole-2-yl)-aminoethyl)piperidin-4-yl))hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- cccccc) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-methoxyethyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis -trifluoroacetate.
- 15 ddddddd) 3-[1-oxo-2-(1-(1-(2-oxo-2-(pyridin-2-yl)aminoethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- 20 eeeeeee) 3-[1-oxo-2-(1-(1-(3-pyridylacetyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- ffffff) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- 25 gggggg) 3-[1-oxo-2-(1-(1-(5-methylpyrazine-2-ylcarbonyl)amino-4-cyclohexyl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- hhhhhh) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-cyano pyridin-2-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.
- 30 iiiiii) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloro pyridin-3-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.
- jjjjjj) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-amino sulphonyl phenyl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.
- 35 kkkkkk) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-chlorophenyl)aminoethyl)piperidin-4-yl)) ydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.
- llllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)aminoethyl)piperidine-4-yl)) hydrazine]ethyl-4-cyanothiazolidine, trihydrochloride.
- 40 mmmmmm) 3-[1-oxo-2-(1-(1-(2-(4,5-dimethylthiazole-2-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.
- 45 nnnnnn) 3-[1-oxo-2-(1-(1-(2-cyclopropyl-1-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride and
- oooooo) 3-[1-oxo-2-(2-ter-butyloxycarbonyl) hydrazino] ethyl-4-

cyanooxazolidine.

10. The pharmaceutical composition as claimed in claim 7, wherein the said compound is selected from the group consisting of :

5

pppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-amino)ethyl)piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

10

qqqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-aminosulphonylphenyl) aminoethyl) piperidin-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

11. A method of inhibiting the enzyme DPP-IV in the body tissue of a mammal including human being which comprises administering an effective amount of compound of compound of general formula I as defined in claim 1, its stereoisomers, or its pharmaceutically acceptable salts in association with a pharmaceutically acceptable carrier, diluent or excepiet to a mammal in need thereof.

12. A method of inhibiting the enzyme DPP-IV in the body tissue of a mammal including human being which comprises administering an effective amount of compound of general formula I as defined in claim 2, its stereoisomers, or its pharmaceutically acceptable salts in association with a pharmaceutically acceptable carrier, diluent or excepiet to a mammal in need thereof.

13. The method as claimed in claim 11, wherein the said compound is selected from the group consisting of :

- a) [2-Cyano-1-(piperazine-2-yl)-carbonyl pyrrolidine bis-trifluoroacetate],
- b) [2-Cyano-1-(4-isopropyl-2-piperazinyl)-carbonyl-pyrrolidine bis trifluoroacetate],
- c) 1-[1-Oxo-2-((1-phenyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- d) 1-[1-Oxo-2-(1-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate ,
- e) 3-[1-Oxo-2-((2-(1,1-dimethyl ethyl oxy carbonyl))hydrazino)]ethyl-4-cyano thiazolidine,

- f) 1-[1-Oxo-2-((2-(1,1-dimethylethoxy carbonyl))-1-phenyl hydrazino)]ethyl-2-cyano pyrrolidine,
- 5 g) 1-[1-Oxo-2-((2-(1,1-dimethylethyl oxy carbonyl))hydrazino)]ethyl-2-cyano pyrrolidine,
- h) 1-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 10 i) 3-[1-Oxo-2-((1-phenyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- j) 1-[1-Oxo-2-(1-(2-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 15 k) 1-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- l) 1-[1-Oxo-2-((1-(1-methyl)ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 20 m) 1-[1-Oxo-2-((2,2-diethyl)-hydrazino)]ethyl-2-cyano thiazolidine,
- n) 1-[1-Oxo-2-((1-ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 25 o) 3-[1-Oxo-2-(1-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- p) 3-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 30 q) 3-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- r) 1-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 35 s) 3-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- t) 1-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 40 u) 3-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 45 v) 1-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,

- w) 3-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 5 x) 1-[1-Oxo-2-((1-Phenyl sulphonyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- y) 3-[1-Oxo-2-((1-(4-methyl)cyclohexyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 10 z) 1-[1-Oxo-2-((4-Methyl)cyclohexyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- aa) 1-[1-Oxo-2-(1-(2-Pyridyl)-hydrazino)]ethyl-2-cyano pyrrolidine bis-trifluoroacetate,
- 15 bb) 3-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate,
- cc) 3-[1-Oxo-2- ((1-(4-methyl) cyclohexyl)-hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate ,
- 20 dd) 1-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-2-cyano pyrrolidine trifluoroacetate,
- ee) [4-Cyano-3-(1-isopropylhydrazino)carbonyl thiazolidine hydrochloride],
- 25 ff) [2-Cyano-1-(1-cyclohexyl hydrazino)carbonyl pyrrolidine hydrochloride],
- gg) [4-Cyano-3-(1-cyclohexylhydrazino)carbonyl thiazolidine hydrochloride],
- 30 hh) 1-[1-Oxo-2- (2-cyclohexyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,
- ii) [4-Cyano-3-(1-phenyl hydrazino) carbonyl thiazolidine trifluoroacetate],
- 35 jj) 3-[1-Oxo-2- (1-cyclohexyl-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine hydrochloride,
- kk) 1-[1-Oxo-2-(4-methylcyclohexyl)hydrazino]ethyl-2-cyanopyrrolidine trifluoroacetate,
- 40 ll) 1-[1-Oxo-2-(1-cyclohexyl-2-isopropyl)hydrazino]ethyl-2-cyano pyrrolidine,
- mm) 1-[1-Oxo-2-(1-(4-methylcyclohexylmethyl) hydrazino)]ethyl-2-cyanopyrrolidine trifluoroacetate, .
- 45 nn) 1-[1-Oxo-2- (4-chlorophenyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,

- oo) 1-[1-Oxo-2-isopropyl-2-hydrazino] ethyl-2-cyano pyrrolidine trifluoroacetate,
- 5 pp) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-ethyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- qq) 3-[1-Oxo-2- (1-(4-morpholinocarbonyl) hydrazino) ethyl]-4-cyanothiazolidine trifluoroacetate,
- 10 rr) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- ss) 1-[1-Oxo-2- [(1-cyclohexyl)-2-(2-cyano-1-pyrrolidino acetyl)] hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,
- 15 tt) 3-[1-Oxo-2- (1,2-bis- (2-(2-pyridyl) ethylaminocarbonyl) hydrazino)] ethyl-4-cyano thiazolidine bis trifluoroacetate,
- uu) 3-[1-Oxo-2- (1-(4-tert-butyl cyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoro acetate,
- 20 vv) 1-[1-Oxo-2- (1-tetralinyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,
- ww) 3-[1-Oxo-2- (1-(4-tertbutylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- xx) 1-[1-Oxo-2- (1-cyclohexyl)-2-(4-cyano-3-thiazolidino acetyl)] hydrazino] ethyl-2-cyano pyrrolidine,
- 30 yy) 3-[1-Oxo-2- (1-isopropyl-4-piperidinyl) hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate,
- zz) 3-[1-Oxo-2- (1-(1-(4-cyanophenylmethyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine bis trifluoroacetate,
- 35 aaa) 3-[1-Oxo-2-[1-(4-methylcyclohexyl)-2-(1-(3-pyridinylmethyl)-4-piperidinyl)]hydrazino]ethyl-4-cyanothiazolidine,
- 40 bbb) 3-[1-Oxo-2- [1-(4-methylcyclohexyl)-2-(1-isopropyl-4-piperidinyl)] hydrazino] ethyl-4-cyanothiazolidine,
- ccc) 3-[1-Oxo-2- (1-(1-(4-methylphenylsulphonyl)-4-piperidinyl)-hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 45 ddd) 3-[1-Oxo-2- [1-methyl-2- (1-(4-methylphenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,

- eee) 3-[1-Oxo-2- (1-(1-(3-pyridinemethyl)-4-piperidinyl) hydrazino)] ethyl-4-cyanothiazolidine tris trifluoroacetate,
- 5 fff) 3-[1-Oxo-2- [1-methyl-2- (1-(4-cyanophenylmethyl) piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis trifluoroacetate,
- ggg) 3-[1-Oxo-2- [1-methyl-2- (1-(3-pyridinylmethyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine tris trifluoroacetate,
- 10 hhh) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoro acetate,
- iii) 3-[1-Oxo-2- (1-(1-(4-nitrophenylmethyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 15 jjj) 3-[1-Oxo-2- [1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- kkk) 3-[1-Oxo-2- (1-(1-norcamphoranyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 lll) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate,
- mmm) 3-[1-Oxo-2-[1-(1-(4-methylcyclohexyl carbonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 25 nnn) 3-[1-Oxo-2-(1-(1-acetyl)-piperidin-4-yl)hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- ooo) 1,1-Dioxo-3-[1-oxo-2-(1-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- ppp) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine,
- 35 qqq) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine ,
- rrr) 3-[1-Oxo-2-(1-(1-(2,3-dichlorophenyl carbonyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 40 sss) 3-[1-Oxo-2-[1-methyl-2-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)]-hydrazino] ethyl-4-cyanothiazolidine,
- 45 ttt) 3-[1-Oxo-2-(1-(4-piperidinyl) hydrazino)]ethyl-4-cyanothiazolidine bis trifluoroacetate,
- uuu) [1-Oxo-2-(1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)-hydrazino)]

- ethyl -2- cyanopyrrolidine trifluoroacetate,
- vvv) 3-[1-Oxo-2-(1-(4-methylcyclohexyl)-2-acetyl) hydrazino]ethyl-4-cyanothiazolidine,
- 5 www) 3-[1-Oxo-2-(1-(1-adamantanyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- xxx) 3-[1-Oxo-2-(1-(1-(tert-butyl carbonyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 10 4-
- yyy) 3-[1-Oxo-2-(1-(1-(5-trifluoromethyl-2-pyridinyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyano thiazolidine bis trifluoroacetate,
- 15 zzz) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate ,
- aaaa) 3-[1-Oxo-2- (1-(3,3,5-trimethyl cyclohexyl)-hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 bbbb) 3-[1-Oxo-2-(1-isopropyl-2-ethyl)-hydrazino]-ethyl-4-cyanothiazolidine trifluoroacetate,
- cccc) 3-[1-Oxo-2-[1-(1-phenylmethyl-piperidin-4-yl)]-hydrazino]-ethyl-4-cyanothiazolidine trifluoroacetate,
- 25 dddd) 3-[1-Oxo-2-(1-(1-(4-chlorophenyl sulphonylamino-4-cyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 30 eeee) 3-[1-Oxo-2-(pyridazin-1-yl)] ethyl-4-cyanothiazolidine,
- ffff) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 35 gggg) 3-[1-oxo-2-[1-(1(morpholinocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyano-thiazolidine trifluoroacetate,
- hhhh) 3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 40 iiiii) 3-[1-oxo-2-[1-(1(methylsulphonyl)-piperidin-4-yl)-2-isopropyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- jjjj) 3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 45 kkkk) 3-[1-oxo-2-[1-(1-(morpholinocarbonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,

- llll) 3-[1-oxo-2-[1-(1-(N-ethylmethylaminocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 5 mmmm) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- nnnn) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)aminocyclohexan-4-yl)]hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 10 oooo) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)aminocyclohexan-4-yl)]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- pppp) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 15 qqqq) 3-[1-oxo-2-[(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl -4-cyanothiazolidine tris-trifluoroacetate,
- rrrr) 3-[1-oxo-2-[1-(1-(trimethyl acetamido)cyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 ssss) 3-[1-oxo-2-[1-(1-(methanesulphonyl)aminocyclohexan-4-yl)-2-ethyl]hydrazino] ethyl-4-cyanothiazolidine,
- tttt) 3-[1-oxo-2-[(1-(1-(trimethyl acetamido) cyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 25 uuuu) 3-[1-oxo-2-[1-(1-(2-oxo-2-(4-cyanophenyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate ,
- 30 vvvv) 3-[1-oxo-2-[1-(1-(4-fluorobenzoyl)aminocyclohexan-4-yl)]hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- www) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]-2-ethylhydrazino] ethyl-4-cyanothiazolidine tris-hydrochloride,
- 35 xxxx) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-trifluorophenyl)aminoethyl)piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- yyyy) 3-[1-oxo-2-[1-(1-(2-oxo-2(-adamant-1-yl)amino ethyl)piperidin-4-yl)]hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,
- 40 zzzz) 3-[1-oxo-2-[1-(1-(2-oxo-2(2,3-dihydrobenzo(1,4)dioxan-6-yl)aminoethyl) piperidin-4-yl)] hydrazino] ethyl-4-cyano-thiazolidine bis-trifluoroacetate,
- 45 aaaaa) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-chlorophenyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,

- bbbbb) 3-[2-oxo-2-[1-(1-(2-oxo-2(pyrimidin-2-yl)aminoethyl)piperidin-4-yl)]
hydrazino] ethyl -4-cyanothiazolidine tris-trifluoroacetate,
- 5 ccccc) 3-[1-oxo-2-[1-(1-(2-oxo-2(morpholin-4-yl)ethyl)piperidin-4-yl)]
hydrazino] ethyl- 4-cyanothiazolidine bis-trifluoroacetate,
- ddddd) 3[1-oxo-2-[1-(1-(2-oxo-2-(cyclopropyl)aminoethyl)piperidin-4-
yl)]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate ,
- 10 eeeee) 3-[1-oxo-2-[1-(1-(2-cyanobiphenyl-4-yl)methyl) piperidine-4-
yl]]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- fffff) 3-[1-oxo-2-[1-(1-(1-oxo-2-(morpholin-4-yl)ethyl)piperidin-4-yl)]
hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 15 ggggg) 3-[1-oxo-2-[1-(4 -(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)amino
cyclohex- 1-yl)]hydrazino]ethyl-4-cyanothiazolidine tris-
trifluoroacetate,
- hhhhh) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-cyanophenyl)aminoethyl)aminocyclohex-
1- yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate ,
- 20 iiiii) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-chlorophenyl)aminoethyl)aminocyclohex-
1- yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- jjjjj) 3-[1-oxo-2-(1-(1-methanesulphonylamino-4-
cyclohexyl)hydrazino)]ethyl-4-cyanothiazolidine hydrochloride and
- 25 kkkkk) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidine-
4-yl)]hydrazino]ethyl-4-cyanothiazolidine trihydrochloride.
- 30

14. The method as claimed in claim 11, wherein the said compound is selected from
the group consisting of :

- 35 lllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl) piperidin-4-
yl)) hydrazino]ethyl(s)-(+)4-cyanothiazolidine tris-trifluoroacetate
- 40 mmmmm) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-bromothiazol-2-yl)aminoethyl)
piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- nnnnn) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4,5-dimethylthiazole-2-yl) aminoethyl)
piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- 45 ooooo) 3-[1-oxo-2-(1-(1-(2-oxo-2(5-cyanopyridin-2-yl)aminoethyl) piperidin-4-
yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

- ppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloropyridyl-3-yl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- 5 qqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-fluorobenzyl)amino ethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate
- rrrrr) 3-[1-oxo-2-(1-(1-phenoxyethyl)piperidin-4-yl)hydrazino] ethyl-4-cyano-
thiazolidine, bis-trifluoroacetate.
- 10 sssss) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)amino ethyl) piperidin-4-yl))hydrazino] ethyl-2-cyanopyrrolidine, tris-trifluoroacetate.
- 15 ttttt) 3-[1-oxo-2-(1-(1-(2-oxo-2-cyclohexyl)aminoethyl)piperidin-4-yl)hydrazino]ethyl-4-cyanothiazoline, bis-trifluoroacetate.
- uuuuu) 3-[(1-oxo-2-(1-(1-(2-oxo-2-(3-isopropoxy propan-1-yl)amino ethyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 20 vvvvv) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-(thiophene-2-yl) ethyl) aminoethyl) piperidine-4-yl))hydrazino]ethyl - 4- cyanothiazolidine, bis-trifluoroacetate.
- wwwww) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3-chloro-4-fluoro-phenyl)aminoethyl) piperidine-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 25 xxxxx) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-ethoxycarbonyl methyl thiazole-2-yl) amino ethyl) piperidine-4-yl)) hydrazino] ethyl -4-cyanothiazolidine, tris-trifluoroacetate.
- 30 yyyyy) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3,4-methelenedioxyphenyl) amino ethyl) piperidine -4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 35 zzzzz) 3-[1-oxo-2-(1-(1-(3-oxo-3-cyclopropyl)amino propyl)piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate
- aaaaa) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl) amino ethyl) piperidine-4-yl)-2-methoxycarbonyl) hydrazino]ethyl-4-cyanothiazolidine, trihydrochloride.
- 40 bbbbbb) 3-[1-oxo-2-(1-(1-(2-oxo-2-(thiazole-2-yl)-aminoethyl)piperidin-4-yl))hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- 45 cccccc) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-methoxyethyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis -trifluoroacetate.
- dddddd) 3-[1-oxo-2-(1-(1-(2-oxo-2-(pyridin-2-yl)aminoethyl)piperidine-4-

yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

5 eeeee) 3-[1-oxo-2-(1-(1-(3-pyridylacetyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

ffffff) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

10 gggggg) 3-[1-oxo-2-(1-(1-(5-methylpyrazine-2-ylcarbonyl)amino-4-cyclohexyl))hydrazino]ethyl-4-cyanothiazolidine, trifluoroacetate.

hhhhh) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-cyano pyridin-2-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

15 iiiiii) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloro pyridin-3-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.

jjjjj) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-amino sulphonyl phenyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.

20 kkkkk) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-chlorophenyl)aminoethyl)piperidin-4-yl)) ydrazino]ethyl-4-cyano thiazolidine, bis-trihydrochloride.

25 lllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)aminoethyl)piperidine-4-yl)) hydrazine]ethyl-4-cyanothiazolidine, trihydrochloride.

mmmmm) 3-[1-oxo-2-(1-(1-(2-(4,5-dimethylthiazole-2-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

30 nnnnn) 3-[1-oxo-2-(1-(1-(2-cyclopropyl-1-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride and

35 ooooo) 3-[1-oxo-2-(2-ter-butyloxycarbonyl) hydrazino] ethyl-4-cyanothiazolidine.

15. The method as claimed in claim 12, wherein said compound is selected from the group consisting of :

40 ppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-amino)ethyl)piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate and

45 qqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-aminosulphonylphenyl) aminoethyl)piperidin-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

16. A method of scavenging free radical from the body tissue of a mammal including human being, which comprises administering an effective amount of compound of general formula I as defined in claim 1, its stereoisomers or its pharmaceutically acceptable salts in association with a pharmaceutically acceptable carrier, diluent or excipient to a mammal in need thereof.

17. A method of scavenging free radical from the body tissue of a mammal including human being which comprises administering an effective amount of compound of general formula I as defined in claim 2, its stereoisomers or its pharmaceutically acceptable salts in association with a pharmaceutically acceptable carrier, diluent or excipient to a mammal in need thereof.

18. The method as claimed in claim 16, wherein the said compound is selected from the group consisting of :

- a) [2-Cyano-1-(piperazine-2-yl)-carbonyl pyrrolidine bis-trifluoroacetate],
- b) [2-Cyano-1-(4-isopropyl-2-piperazinyl)-carbonyl-pyrrolidine bis trifluoroacetate],
- c) 1-[1-Oxo-2-((1-phenyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- d) 1-[1-Oxo-2-(1-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- e) 3-[1-Oxo-2-((2-(1,1-dimethyl ethyl oxy carbonyl))hydrazino)]ethyl-4-cyano thiazolidine,
- f) 1-[1-Oxo-2-((2-(1,1-dimethylethoxy carbonyl))-1-phenyl hydrazino)]ethyl-2 cyano pyrrolidine,
- g) 1-[1-Oxo-2-((2-(1,1-dimethylethyl oxy carbonyl))hydrazino)]ethyl-2-cyano pyrrolidine,
- h) 1-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate ,
- i) 3-[1-Oxo-2-((1-phenyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,

- j) 1-[1-Oxo-2-(1-(2-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- k) 1-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 5 l) 1-[1-Oxo-2-((1-(1-methyl)ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- m) 1-[1-Oxo-2-((2,2-diethyl)-hydrazino)]ethyl-2-cyano thiazolidine ,
- n) 1-[1-Oxo-2-((1-ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 10 o) 3-[1-Oxo-2-(1-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate ,
- p) 3-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-4-cyano thiazolidine
trifluoroacetate,
- 15 q) 3-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-4-cyano thiazolidine
trifluoroacetate,
- r) 1-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-2-cyano pyrrolidine
trifluoroacetate,
- 20 s) 3-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-4-cyano thiazolidine
trifluoroacetate,
- t) 1-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-2-cyano pyrrolidine
trifluoroacetate,
- 25 u) 3-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-4-cyano thiazolidine
trifluoroacetate,
- 30 v) 1-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine
trifluoroacetate,
- w) 3-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-4-cyano thiazolidine
trifluoroacetate,
- 35 x) 1-[1-Oxo-2-((1-Phenyl sulphonyl)hydrazino)]ethyl-2-cyano pyrrolidine
trifluoroacetate,
- y) 3-[1-Oxo-2-((1-(4-methyl)cyclohexyl)hydrazino)]ethyl-4-cyano thiazolidine
trifluoroacetate,
- 40 z) 1-[1-Oxo-2-((4-Methyl)cyclohexyl)hydrazino)]ethyl-2-cyano pyrrolidine
trifluoroacetate ,
- 45 aa) 1-[1-Oxo-2-(1-(2-Pyridyl)-hydrazino)]ethyl-2-cyano pyrrolidine bis-
trifluoroacetate,

bb) 3-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate ,

5 cc) 3-[1-Oxo-2- ((1-(4-methyl) cyclohexyl)-hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate ,

dd) 1-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-2-cyano pyrrolidine trifluoroacetate,

10 ee) [4-Cyano-3-(1-isopropylhydrazino)carbonyl thiazolidine hydrochloride] ,

ff) [2-Cyano-1-(1-cyclohexyl hydrazino)carbonyl pyrrolidine hydrochloride],

15 gg) [4-Cyano-3-(1-cyclohexylhydrazino)carbonyl thiazolidine hydrochloride],

hh) 1-[1-Oxo-2- (2-cyclohexyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,

20 ii) [4-Cyano-3-(1-phenyl hydrazino) carbonyl thiazolidine trifluoroacetate],

25 jj) 3-[1-Oxo-2- (1-cyclohexyl-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine hydrochloride,

kk) 1-[1-Oxo-2-(4-methylcyclohexyl)hydrazino]ethyl-2-cyanopyrrolidine trifluoroacetate ,

30 ll) 1-[1-Oxo-2-(1-cyclohexyl-2-isopropyl)hydrazino]ethyl-2-cyano pyrrolidine,

mm) 1-[1-Oxo-2-(1-(4-methylcyclohexylmethyl) hydrazino)]ethyl-2-cyanopyrrolidine trifluoroacetate,

35 nn) 1-[1-Oxo-2- (4-chlorophenyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,

oo) 1-[1-Oxo-2-isopropyl-2-hydrazino] ethyl-2-cyano pyrrolidine trifluoroacetate,

40 pp) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-ethyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,

qq) 3-[1-Oxo-2- (1-(4-morpholinocarbonyl) hydrazino) ethyl]-4-cyanothiazolidine trifluoroacetate,

45 rr) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,

ss) 1-[1-Oxo-2- [(1-cyclohexyl)-2-(2-cyano-1-pyrrolidino acetyl)] hydrazino]

- ethyl-2-cyanopyrrolidine trifluoroacetate,
- 5 tt) 3-[1-Oxo-2- (1,2-bis- (2-(2-pyridyl) ethylaminocarbonyl) hydrazino)] ethyl-4-cyano thiazolidine bis trifluoroacetate,
- uu) 3-[1-Oxo-2- (1-(4-tert-butyl cyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoro acetate,
- 10 vv) 1-[1-Oxo-2- (1-tetralinyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate ,
- ww) 3-[1-Oxo-2- (1-(4-tertbutylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 15 xx) 1-[1-Oxo-2- (1-cyclohexyl)-2-(4-cyano-3-thiazolidino acetyl)] hydrazino] ethyl-2-cyano pyrrolidine,
- yy) 3-[1-Oxo-2- (1-isopropyl-4-piperidinyl) hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate,
- 20 zz) 3-[1-Oxo-2- (1-(1-(4-cyanophenylmethyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine bis trifluoroacetate,
- 25 aaa) 3-[1-Oxo-2-[1-(4-methylcyclohexyl)-2-(1-(3-pyridinylmethyl)-4-piperidinyl)]hydrazino]ethyl-4-cyanothiazolidine,
- bbb) 3-[1-Oxo-2- [1-(4-methylcyclohexyl)-2-(1-isopropyl-4-piperidinyl)] hydrazino] ethyl-4-cyanothiazolidine ,
- 30 ccc) 3-[1-Oxo-2- (1-(1-(4-methylphenylsulphonyl)-4-piperidinyl)-hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- ddd) 3-[1-Oxo-2- [1-methyl-2- (1-(4-methylphenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate ,
- 35 eee) 3-[1-Oxo-2- (1-(1-(3-pyridinemethyl)-4-piperidinyl) hydrazino)] ethyl-4-cyanothiazolidine tris trifluoroacetate,
- 40 fff) 3-[1-Oxo-2- [1-methyl-2- (1-(4-cyanophenylmethyl) piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis trifluoroacetate,
- ggg) 3-[1-Oxo-2- [1-methyl-2- (1-(3-pyridinylmethyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine tris trifluoroacetate,
- 45 hhh) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoro acetate,
- iii) 3-[1-Oxo-2- (1-(1-(4-nitrophenylmethyl)-piperidin-4-yl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,

- jjj) 3-[1-Oxo-2- [1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)] hydrazino]
ethyl- 4-cyanothiazolidine trifluoroacetate,
- 5 kkk) 3-[1-Oxo-2- (1-(1-norcamphoranyl) hydrazino)] ethyl-4-
cyanothiazolidine trifluoroacetate,
- lll) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine
trifluoroacetate,
- 10 mmm) 3-[1-Oxo-2-[1-(1-(4-methylcyclohexyl carbonyl)-piperidin-4-yl)]
hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- nnn) 3-[1-Oxo-2-(1-(1-acetyl)-piperidin-4-yl)hydrazino] ethyl-4-
15 cyanothiazolidine trifluoroacetate,
- ooo) 1,1-Dioxo-3-[1-oxo-2-(1-(4-methylcyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 20 ppp) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine ,
- qqq) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine,
- 25 rrr) 3-[1-Oxo-2-(1-(1-(2,3-dichlorophenyl carbonyl)-piperidin-4-yl) hydrazino)]
ethyl-4-cyanothiazolidine trifluoroacetate ,
- 30 sss) 3-[1-Oxo-2-[1-methyl-2-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)]-
hydrazino] ethyl-4-cyanothiazolidine,
- ttt) 3-[1-Oxo-2-(1-(4-piperidinyl) hydrazino)]ethyl-4-cyanothiazolidine bis
trifluoroacetate,
- 35 uuu) [1-Oxo-2-(1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)-hydrazino)]
ethyl -2-cyanopyrrolidine trifluoroacetate,
- vvv) 3-[1-Oxo-2-(1-(4-methylcyclohexyl)-2-acetyl) hydrazino]ethyl-4-
cyanothiazolidine,
- 40 www) 3-[1-Oxo-2-(1-(1-adamantanyl) hydrazino)] ethyl-4-cyanothiazolidine
trifluoroacetate,
- xxx) 3-[1-Oxo-2-(1-(1-(tert-butyl carbonyl)-piperidin-4-yl) hydrazino)] ethyl-
45 4- cyanothiazolidine trifluoroacetate,
- yyy) 3-[1-Oxo-2-(1-(1-(5-trifluoromethyl-2-pyridinyl)-piperidin-4-yl)
hydrazino)] ethyl-4-cyano thiazolidine bis trifluoroacetate,

- zzz) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 5 aaaa) 3-[1-Oxo-2- (1-(3,3,5-trimethyl cyclohexyl)-hydrazino)] ethyl-4-
cyanothiazolidine trifluoroacetate,
- bbbb) 3-[1-Oxo-2-(1-isopropyl-2-ethyl)-hydrazino]-ethyl-4-cyanothiazolidine
trifluoroacetate,
- 10 cccc) 3-[1-Oxo-2-[1-(1-phenylmethyl-piperidin-4-yl)]-hydrazino]-ethyl-4-
cyanothiazolidine trifluoroacetate,
- 15 dddd) 3-[1-Oxo-2-(1-(1-(4-chlorophenyl sulphonylamino-4-cyclohexyl)
hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- eeee) 3-[1-Oxo-2-(pyridazin-1-yl)] ethyl-4-cyanothiazolidine,
- 20 ffff) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)-2-
isopropyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- gggg) 3-[1-oxo-2-[1-(1(morpholinocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-
4-cyano- thiazolidine trifluoroacetate,
- 25 hhhh) 3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)]hydrazino]ethyl-4-
cyanothiazolidine trifluoroacetate,
- iiii)3-[1-oxo-2-[1-(1(methylsulphonyl)-piperidin-4-yl)-2-
isopropyl]hydrazino]ethyl- 4-cyanothiazolidine trifluoroacetate,
- 30 jjjj)3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-
cyanothiazolidine trifluoroacetate,
- 35 kkkk) 3-[1-oxo-2-[1-(1-(morpholinocarbonyl)-piperidin-4-yl)-2-ethyl]
hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 40 ll ll)3-[1-oxo-2-[1-(1-(N-ethylmethylaminocarbonyl)-piperidin-4-
yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- mmmm) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)-piperidin-4-
yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 45 nnnn) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)aminocyclohexan-4-yl)]
hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- oooo) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)aminocyclohexan-4-
yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

- pppp) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 5 qqqq) 3-[1-oxo-2-[(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl -4-cyanothiazolidine tris-trifluoroacetate,
- rrrr) 3-[1-oxo-2-[1-(1-(trimethyl acetamido)cyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 10 ssss) 3-[1-oxo-2-[1-(1-(methanesulphonyl)aminocyclohexan-4-yl)-2-ethyl]hydrazino] ethyl-4-cyanothiazolidine ,
- 15 tttt) 3-[1-oxo-2-[(1-(1-(trimethyl acetamido) cyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- uuuu) 3-[1-oxo-2-[1-(1-(2-oxo-2-(4-cyanophenyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 20 vvvv) 3-[1-oxo-2-[1-(4-fluorobenzoyl)aminocyclohexan-4-yl)]hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- www) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]-2-ethylhydrazino] ethyl-4-cyanothiazolidine tris-hydrochloride,
- 25 xxxx) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-trifluorophenyl)aminoethyl)piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- yyyy) 3-[1-oxo-2-[1-(1-(2-oxo-2(-adamant-1-yl)amino ethyl)piperidin-4-yl)]hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,
- 30 zzzz) 3-[1-oxo-2-[1-(1-(2-oxo-2(2,3-dihydrobenzo(1,4)dioxan-6-yl)aminoethyl) piperidin-4-yl)] hydrazino] ethyl-4-cyano-thiazolidine bis-trifluoroacetate,
- 35 aaaaa) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-chlorophenyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,
- 40 bbbbb) 3[2-oxo-2-[1-(1-(2-oxo-2(pyrimidin-2-yl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl -4-cyanothiazolidine tris-trifluoroacetate,
- ccccc) 3-[1-oxo-2-[1-(1-(2-oxo-2(morpholin-4-yl)ethyl)piperidin-4-yl)]hydrazino] ethyl- 4-cyanothiazolidine bis-trifluoroacetate,
- 45 ddddd) 3[1-oxo-2-[1-(1-(2-oxo-2-(cyclopropyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,

eeee) 3-[1-oxo-2-[1-(1-(2-cyanobiphenyl-4-yl)methyl)piperidine-4-yl]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

ffff) 3-[1-oxo-2-[1-(1-(1-oxo-2-(morpholin-4-yl)ethyl)piperidin-4-yl)]hydrazino]

a. ethyl-4-cyanothiazolidine bis-trifluoroacetate,

ggggg) 3-[1-oxo-2-[1-(4-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine tris-trifluoroacetate,

hhhhh) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-cyanophenyl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

iiii) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-chlorophenyl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

jjjjj) 3-[1-oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)hydrazino)]ethyl-4-cyanothiazolidine hydrochloride and

kkkkk) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidine-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trihydrochloride.

19. The method as claimed in claim 16, wherein the said compound is selected from the group consisting of :

lllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl) piperidin-4-yl)) hydrazino]ethyl(s)(+)-4-cyanothiazolidine tris-trifluoroacetate

mmmmm) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-bromothiazol-2-yl)aminoethyl) piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

nnnnn) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4,5-dimethylthiazole-2-yl) aminoethyl) piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

ooooo) 3-[1-oxo-2-(1-(1-(2-oxo-2(5-cyanopyridin-2-yl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

ppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloropyridyl-3-yl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

qqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-fluorobenzyl)amino ethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate

rrrrr) 3-[1-oxo-2-(1-(1-phenoxyethyl)piperidin-4-yl)hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

- sssss) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)amino ethyl) piperidin-4-yl))hydrazino] ethyl-2-cyanopyrrolidine, tris-trifluoroacetate.
- 5 ttttt) 3-[1-oxo-2-(1-(1-(2-oxo-2-cyclohexyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyanothiazoline, bis-trifluoroacetate.
- uuuuu) 3-[(1-oxo-2-(1-(1-(2-oxo-2-(3-isopropoxy propan-1-yl)amino ethyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 10 vvvvv) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-(thiophene-2-yl) ethyl) aminoethyl) piperidine-4-yl))hydrazino]ethyl - 4- cyanothiazolidine, bis-trifluoroacetate.
- 15 wwwww) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3-chloro-4-fluoro-phenyl)aminoethyl) piperidine-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 20 xxxxx) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-ethoxycarbonyl methyl thiazole-2-yl) amino ethyl) piperidine-4-yl)) hydrazino] ethyl -4-cyanothiazolidine, tris-trifluoroacetate.
- yyyyy) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3,4-methelenedioxyphenyl) amino ethyl) piperidine -4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 25 zzzzz) 3-[1-oxo-2-(1-(1-(3-oxo-3-cyclopropyl)amino propyl)piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate
- 30 aaaaa) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl) amino ethyl) piperidine-4-yl)-2-methoxycarbonyl) hydrazino]ethyl-4-cyanothiazolidine, trihydrochloride.
- 35 bbbbbb) 3-[1-oxo-2-(1-(1-(2-oxo-2-(thiazole-2-yl)-aminoethyl)piperidin-4-yl))hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- cccccc) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-methoxyethyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis -trifluoroacetate.
- 40 ddddd) 3-[1-oxo-2-(1-(1-(2-oxo-2-(pyridin-2-yl)aminoethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- eeeeee) 3-[1-oxo-2-(1-(1-(3-pyridylacetyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 45 fffff) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)piperidine-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- gggggg) 3-[1-oxo-2-(1-(1-(5-methylpyrazine-2-ylcarbonyl)amino-4-

cyclohexyl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

hhhhh) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-cyano pyridin-2-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

5

iiiiii) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloro pyridin-3-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

jjjjj) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-amino sulphonyl phenyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.

10

kkkkk) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-chlorophenyl)aminoethyl)piperidin-4-yl)) ydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.

15

lllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)aminoethyl)piperidine-4-yl)) hydrazine]ethyl-4-cyanothiazolidine, trihydrochloride.

mmmmm) 3-[1-oxo-2-(1-(1-(2-(4,5-dimethylthiazole-2-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thizolidine, trihydrochloride.

20

nnnnn) 3-[1-oxo-2-(1-(1-(2-cyclopropyl-1-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride and

25

ooooo) 3-[oxo-2- (2-ter-butyloxycarbonyl) hydrazino] ethyl-4-cyanooxazolidine.

20. The method as claimed in claim 17, wherein the said compound is selected from the group consisting of :

30

ppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-amino)ethyl)piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

qqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-aminosulphonylphenyl) aminoethyl)piperidin-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

35

21. A method for treatment and/or prophylaxis of glucose intolerance in a mammal including human being which comprises administering an effective amount of compound of general formula I as defined in claim 1, its stereoisomers, or its pharmaceutically acceptable salts in association with a pharmaceutically acceptable carrier, diluent or excepiet to a mammal in need thereof.

40

22. A method for treatment and/or prophylaxis of glucose intolerance in a mammal including human being which comprises administering an effective amount of compound of general formula I as defined in claim 2, its stereoisomers, or its pharmaceutically acceptable salts in association with a pharmaceutically acceptable carrier, diluent or excipient to a mammal in need thereof.

23. The method as claimed in claim 21, wherein the said compound is selected from the group consisting of :

- a) [2-Cyano-1-(piperazine-2-yl)-carbonyl pyrrolidine bis-trifluoroacetate],
- b) [2-Cyano-1-(4-isopropyl-2-piperazinyl)-carbonyl-pyrrolidine bis trifluoroacetate],
- c) 1-[1-Oxo-2-((1-phenyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- d) 1-[1-Oxo-2-(1-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- e) 3-[1-Oxo-2-((2-(1,1-dimethyl ethyl oxy carbonyl))hydrazino)]ethyl-4-cyano thiazolidine,
- f) 1-[1-Oxo-2-((2-(1,1-dimethylethoxy carbonyl))-1-phenyl hydrazino)]ethyl-2-cyano pyrrolidine,
- g) 1-[1-Oxo-2-((2-(1,1-dimethylethyl oxy carbonyl))hydrazino)]ethyl-2-cyano pyrrolidine,
- h) 1-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- i) 3-[1-Oxo-2-((1-phenyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- j) 1-[1-Oxo-2-(1-(2-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- k) 1-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- l) 1-[1-Oxo-2-((1-(1-methyl)ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- m) 1-[1-Oxo-2-((2,2-diethyl)-hydrazino)]ethyl-2-cyano thiazolidine,
- n) 1-[1-Oxo-2-((1-ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,

- o) 3-[1-Oxo-2-(1-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 5 p) 3-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- q) 3-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate ,
- 10 r) 1-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- s) 3-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 15 t) 1-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- u) 3-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 20 v) 1-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- w) 3-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 25 x) 1-[1-Oxo-2-((1-Phenyl sulphonyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- y) 3-[1-Oxo-2-((1-(4-methyl)cyclohexyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 30 z) 1-[1-Oxo-2-((4-Methyl)cyclohexyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 35 aa) 1-[1-Oxo-2-(1-(2-Pyridyl)-hydrazino)]ethyl-2-cyano pyrrolidine bis-trifluoroacetate,
- bb) 3-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate,
- 40 cc) 3-[1-Oxo-2- ((1-(4-methyl) cyclohexyl)-hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate,
- 45 dd) 1-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-2-cyano pyrrolidine trifluoroacetate,
- ee) [4-Cyano-3-(1-isopropylhydrazino)carbonyl thiazolidine hydrochloride],

ff) [2-Cyano-1-(1-cyclohexyl hydrazino)carbonyl pyrrolidine hydrochloride],

gg) [4-Cyano-3-(1-cyclohexylhydrazino)carbonyl thiazolidine hydrochloride],

5

hh) 1-[1-Oxo-2- (2-cyclohexyl) hydrazino] ethyl-2-cyanopyrrolidine
trifluoroacetate,

ii) [4-Cyano-3-(1-phenyl hydrazino) carbonyl thiazolidine trifluoroacetate],

10

jj) 3-[1-Oxo-2- (1-cyclohexyl-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine
hydrochloride,

15

kk) 1-[1-Oxo-2-(4-methylcyclohexyl)hydrazino]ethyl-2-cyanopyrrolidine
trifluoroacetate,

ll) 1-[1-Oxo-2-(1-cyclohexyl-2-isopropyl)hydrazino]ethyl-2-cyano pyrrolidine ,

20

mm) 1-[1-Oxo-2-(1-(4-methylcyclohexylmethyl) hydrazino)]ethyl-2-
cyanopyrrolidine trifluoroacetate,

nn) 1-[1-Oxo-2- (4-chlorophenyl) hydrazino] ethyl-2-cyanopyrrolidine
trifluoroacetate,

25

oo) 1-[1-Oxo-2-isopropyl-2-hydrazino] ethyl-2-cyano pyrrolidine trifluoroacetate,

pp) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-ethyl) hydrazino] ethyl-4-
cyanothiazolidine trifluoroacetate,

30

qq) 3-[1-Oxo-2- (1-(4-morpholinocarbonyl) hydrazino) ethyl]-4-cyanothiazolidine
trifluoroacetate,

rr) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-isopropyl) hydrazino] ethyl-4-
cyanothiazolidine trifluoroacetate,

35

ss) 1-[1-Oxo-2- [(1-cyclohexyl)-2-(2-cyano-1-pyrrolidino acetyl)] hydrazino]
ethyl-2-cyanopyrrolidine trifluoroacetate,

40

tt) 3-[1-Oxo-2- (1,2-bis- (2-(2-pyridyl) ethylaminocarbonyl) hydrazino)] ethyl-4-
cyano thiazolidine bis trifluoroacetate,

uu) 3-[1-Oxo-2- (1-(4-tert-butyl cyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine
trifluoro acetate,

45

vv) 1-[1-Oxo-2- (1-tetralinyl) hydrazino] ethyl-2-cyanopyrrolidine
trifluoroacetate,

- ww) 3-[1-Oxo-2- (1-(4-tertbutylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 5 xx) 1-[1-Oxo-2- (1-cyclohexyl)-2-(4-cyano-3-thiazolidino acetyl)] hydrazino] ethyl- 2-cyano pyrrolidine,
- yy) 3-[1-Oxo-2- (1-isopropyl-4-piperidiny] hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate,
- 10 zz) 3-[1-Oxo-2- (1-(1-(4-cyanophenylmethyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine bis trifluoroacetate,
- aaa) 3-[1-Oxo-2-[1-(4-methylcyclohexyl)-2-(1-(3-pyridinylmethyl)-4-piperidiny]]hydrazino]ethyl-4-cyanothiazolidine,
- 15 bbb) 3-[1-Oxo-2- [1-(4-methylcyclohexyl)-2-(1-isopropyl-4-piperidiny]] hydrazino] ethyl-4-cyanothiazolidine,
- ccc) 3-[1-Oxo-2- (1-(1-(4-methylphenylsulphonyl)-4-piperidiny]-hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 ddd) 3-[1-Oxo-2- [1-methyl-2- (1-(4-methylphenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- eee) 3-[1-Oxo-2- (1-(1-(3-pyridinemethyl)-4-piperidiny] hydrazino)] ethyl-4-cyanothiazolidine tris trifluoroacetate,
- fff) 3-[1-Oxo-2- [1-methyl-2- (1-(4-cyanophenylmethyl) piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis trifluoroacetate,
- 30 ggg) 3-[1-Oxo-2- [1-methyl-2- (1-(3-pyridinylmethyl)-piperidin-4-yl)] hydrazino]ethyl-4-cyanothiazolidine tris trifluoroacetate,
- hhh) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoro acetate,
- 35 iii) 3-[1-Oxo-2- (1-(1-(4-nitrophenylmethyl)-piperidin-4-yl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 40 jjj) 3-[1-Oxo-2- [1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- kkk) 3-[1-Oxo-2- (1-(1-norcamphoranyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 45 ll) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate,

- mmm) 3-[1-Oxo-2-[1-(1-(4-methylcyclohexyl carbonyl)-piperidin-4-yl)]
hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 5 nnn) 3-[1-Oxo-2-(1-(1-acetyl)-piperidin-4-yl)hydrazino] ethyl-4-
cyanothiazolidine trifluoroacetate,
- ooo) 1,1-Dioxo-3-[1-oxo-2-(1-(4-methylcyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 10 ppp) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine,
- qqq) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine,
- 15 rrr) 3-[1-Oxo-2-(1-(1-(2,3-dichlorophenyl carbonyl)-piperidin-4-yl)
hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 sss) 3-[1-Oxo-2-[1-methyl-2-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)]-
hydrazino] ethyl-4-cyanothiazolidine,
- ttt) 3-[1-Oxo-2-(1-(4-piperidinyl) hydrazino)]ethyl-4-cyanothiazolidine bis
trifluoroacetate,
- 25 uuu) [1-Oxo-2-(1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)-hydrazino)]
ethyl -2-cyanopyrrolidine trifluoroacetate,
- vvv) 3-[1-Oxo-2-(1-(4-methylcyclohexyl)-2-acetyl) hydrazino]ethyl-4-
cyanothiazolidine,
- 30 www) 3-[1-Oxo-2-(1-(1-adamantanyl) hydrazino)] ethyl-4-cyanothiazolidine
trifluoroacetate,
- 35 xxx) 3-[1-Oxo-2-(1-(1-(tert-butyl carbonyl)-piperidin-4-yl) hydrazino)] ethyl-
4- cyanothiazolidine trifluoroacetate,
- yyy) 3-[1-Oxo-2-(1-(1-(5-trifluoromethyl-2-pyridinyl)-piperidin-4-yl)
hydrazino)] ethyl-4-cyano thiazolidine bis trifluoroacetate,
- 40 zzz) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl) hydrazino)]
ethyl-4- cyanothiazolidine trifluoroacetate,
- aaa) 3-[1-Oxo-2- (1-(3,3,5-trimethyl cyclohexyl)-hydrazino)] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 45 bbbb) 3-[1-Oxo-2-(1-isopropyl-2-ethyl)-hydrazino]-ethyl-4-cyanothiazolidine
trifluoroacetate ,

- cccc) 3-[1-Oxo-2-[1-(1-phenylmethyl-piperidin-4-yl)]-hydrazino]-ethyl-4-cyanothiazolidine trifluoroacetate,
- 5 dddd) 3-[1-Oxo-2-(1-(1-(4-chlorophenyl sulphonylamino-4-cyclohexyl) hydrazino))] ethyl-4-cyanothiazolidine trifluoroacetate,
- eeee) 3-[1-Oxo-2-(pyridazin-1-yl)] ethyl-4-cyanothiazolidine,
- 10 ffff) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- gggg) 3-[1-oxo-2-[1-(1(morpholinocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyano-thiazolidine trifluoroacetate,
- 15 hhhh) 3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- iiii)3-[1-oxo-2-[1-(1(methylsulphonyl)-piperidin-4-yl)-2-isopropyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate ,
- 20 jjjj)3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- kkkk) 3-[1-oxo-2-[1-(1-(morpholinocarbonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- llll)3-[1-oxo-2-[1-(1-(N-ethylmethylaminocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 30 mmmm) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- nnnn) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)aminocyclohexan-4-yl)]hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 35 oooo) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)aminocyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 40 pppp) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- qqqq) 3-[1-oxo-2-[(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl -4-cyanothiazolidine tris-trifluoroacetate,
- 45 rrrr) 3-[1-oxo-2-[1-(1-(trimethyl acetamido)cyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,

- ssss) 3-[1-oxo-2-[1-(1-(methanesulphonyl)aminocyclohexan-4-yl)-2-ethyl]hydrazino] ethyl-4-cyanothiazolidine,
- 5 tttt) 3-[1-oxo-2-[(1-(trimethyl acetamido) cyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- uuuu) 3-[1-oxo-2-[1-(1-(2-oxo-2-(4-cyanophenyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 10 vvvv) 3-[1-oxo-2-[1-(4-fluorobenzoyl)aminocyclohexan-4-yl)]hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- www) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]-2-ethylhydrazino] ethyl-4-cyanothiazolidine tris-hydrochloride,
- 15 xxxx) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-trifluorophenyl)aminoethyl)piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- yyyy) 3-[1-oxo-2-[1-(1-(2-oxo-2(-adamant-1-yl)amino ethyl)piperidin-4-yl)]hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,
- 20 zzzz) 3-[1-oxo-2-[1-(1-(2-oxo-2(2,3-dihydrobenzo(1,4)dioxan-6-yl)aminoethyl)piperidin-4-yl)] hydrazino] ethyl-4-cyano-thiazolidine bis-trifluoroacetate,
- 25 aaaa) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-chlorophenyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,
- bbbbb) 3[2-oxo-2-[1-(1-(2-oxo-2(pyrimidin-2-yl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl -4-cyanothiazolidine tris-trifluoroacetate,
- 30 ccccc) 3-[1-oxo-2-[1-(1-(2-oxo-2(morpholin-4-yl)ethyl)piperidin-4-yl)]hydrazino] ethyl- 4-cyanothiazolidine bis-trifluoroacetate,
- ddddd) 3[1-oxo-2-[1-(1-(2-oxo-2-(cyclopropyl)aminoethyl)piperidin-4-yl)]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 35 eeeee) 3-[1-oxo-2-[1-(1-(2-cyanobiphenyl-4-yl)methyl)piperidine-4-yl]]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 40 fffff) 3-[1-oxo-2-[1-(1-(1-oxo-2-(morpholin-4-yl)ethyl)piperidin-4-yl)]hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- ggggg) 3-[1-oxo-2-[1-(4 -(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)amino cyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine tris-trifluoroacetate,
- 45 hhhhh) 3-[1-oxo-2-[1-(4-(2-oxo-2,(4-cyanophenyl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate ,

iiii) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-chlorophenyl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

5 jjjj) 3-[1-oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)hydrazino)]ethyl-4-cyanothiazolidine hydrochloride and

 kkkk) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidine-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trihydrochloride.

10

24. The method as claimed in claim 21, wherein the said compound is selected from the group consisting of :

15

lllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl) piperidin-4-yl)) hydrazino]ethyl(s)-(+)4-cyanothiazolidine tris-trifluoroacetate

20

mmmmm) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-bromothiazol-2-yl)aminoethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

25

nnnnn) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4,5-dimethylthiazole-2-yl) aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

ooooo) 3-[1-oxo-2-(1-(1-(2-oxo-2(5-cyanopyridin-2-yl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

30

ppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloropyridyl-3-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

qqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-fluorobenzyl)amino ethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate

35

rrrrr) 3-[1-oxo-2-(1-(1-phenoxyethyl)piperidin-4-yl)hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

40

sssss) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)amino ethyl) piperidin-4-yl))hydrazino] ethyl-2-cyanopyrrolidine, tris-trifluoroacetate.

ttttt) 3-[1-oxo-2-(1-(1-(2-oxo-2-cyclohexyl)aminoethyl)piperidin-4-yl)hydrazino]ethyl-4-cyanothiazoline, bis-trifluoroacetate.

45

uuuuu) 3-[(1-oxo-2-(1-(1-(2-oxo-2-(3-isopropoxy propan-1-yl)amino ethyl)piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

vvvvv) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-(thiophene-2-yl) ethyl) aminoethyl)piperidine-4-yl))hydrazino]ethyl - 4- cyanothiazolidine, bis-trifluoroacetate.

wwwwww) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3-chloro-4-fluoro-phenyl)aminoethyl) piperidine-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

5 xxxxx) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-ethoxycarbonyl methyl thiazole-2-yl) amino ethyl) piperidine-4-yl)) hydrazino] ethyl -4-cyanothiazolidine, tris-trifluoroacetate.

10 yyyyy) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3,4-methelenedioxyphenyl) amino ethyl) piperidine -4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

15 zzzzz) 3-[1-oxo-2-(1-(1-(3-oxo-3-cyclopropyl)amino propyl)piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate

aaaaa) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl) amino ethyl) piperidine-4-yl)-2-methoxycarbonyl) hydrazino]ethyl-4-cyanothiazolidine, trihydrochloride.

20 bbbbbb) 3-[1-oxo-2-(1-(1-(2-oxo-2-(thiazole-2-yl)-aminoethyl)piperidin-4-yl))hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

25 cccccc) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-methoxyethyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis -trifluoroacetate.

ddddd) 3-[1-oxo-2-(1-(1-(2-oxo-2-(pyridin-2-yl)aminoethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

30 eeeee) 3-[1-oxo-2-(1-(1-(3-pyridylacetyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

fffff) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)piperidine-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

35 gggggg) 3-[1-oxo-2-(1-(1-(5-methylpyrazine-2-ylcarbonyl)amino-4-cyclohexyl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

40 hhhhhh) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-cyano pyridin-2-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

iiiiii) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloro pyridin-3-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

45 jjjjjj) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-amino sulphonyl phenyl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.

kkkkkk) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-chlorophenyl)aminoethyl)piperidin-4-yl)) ydraziño]ethyl-4-cyano thiazolidine, dihydrochloride.

- lllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)aminoethyl)piperidine-4-yl)) hydrazine]ethyl-4-cyanothiazolidine, trihydrochloride.
- 5 mmmmm) 3-[1-oxo-2-(1-(1-(2-(4,5-dimethylthiazole-2-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.
- nnnnn) 3-[1-oxo-2-(1-(1-(2-cyclopropyl-1-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride and
- 10 ooooo) 3-[1-oxo-2-(2-ter-butyloxycarbonyl) hydrazino] ethyl-4- cyanooxazolidine.

25. The method as claimed in claim 22, wherein the said compound is selected from
15 the group consisting of :

- ppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-amino)ethyl)piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate and
- 20 qqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-aminosulphonylphenyl) aminoethyl) piperidin-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

26. A method for treatment and/or prophylaxis of disorders associated with DPP-IV in
25 a mammal including human being by administering an effective amount of compound of general formula I as defined in claim 1, its stereoisomers, or its pharmaceutically acceptable salts to a mammal in need thereof, wherein the said disorders are selected from the group consisting of

- a) Cushing's syndrome;
- 30 b) Hyperthyroidism;
- c) Obesity;
- d) Hyperglucagonemia;
- e) Diseases including ulcers and HIV infection;
- f) Disorders related to increased gastric emptying, acid secretion and hunger;
- 35 g) Autoimmune disorders including multiple sclerosis;
- h) Rheumatoid arthritis;
- i) Grave's disease ;
- j) Diarrhea;
- k) Mucosal regeneration in patients with intestinal disease;

- l) Growth hormone deficiency;
- m) Neurological and neuropsychological disorders and
- n) Cancers and tumors.

27. A method for treatment and/or prophylaxis of disorders associated with DPP-IV in a mammal including human being by administering an effective amount of compound of general formula I as defined in claim 2, its stereoisomers, or its pharmaceutically acceptable salts to a mammal in need thereof, wherein the said disorders are selected from the group consisting of

- a) Cushing's syndrome;
- b) Hyperthyroidism;
- c) Obesity;
- d) Hyperglucagonemia;
- e) Diseases including ulcers and HIV infection;
- f) Disorders related to increased gastric emptying, acid secretion and hunger;
- g) Autoimmune disorders including multiple sclerosis;
- h) Rheumatoid arthritis;
- i) Grave's disease ;
- j) Diarrhea;
- k) Mucosal regeneration in patients with intestinal disease;
- l) Growth hormone deficiency;
- m) Neurological and neuropsychological disorders and
- n) Cancers and tumors.

28. The method as claimed in claim 26, wherein the said compound is selected from the group consisting of :-

- a) [2-Cyano-1-(piperazine-2-yl)-carbonyl pyrrolidine bis-trifluoroacetate],
- b) [2-Cyano-1-(4-isopropyl-2-piperazinyl)-carbonyl-pyrrolidine bis trifluoroacetate],
- c) 1-[1-Oxo-2-((1-phenyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- d) 1-[1-Oxo-2-(1-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,

- e) 3-[1-Oxo-2-((2-(1,1-dimethyl ethyl oxy carbonyl))hydrazino)]ethyl-4-cyano thiazolidine,
- 5 f) 1-[1-Oxo-2-((2-(1,1-dimethylethoxy carbonyl))-1-phenyl hydrazino)]ethyl-2-cyano pyrrolidine,
- g) 1-[1-Oxo-2-((2-(1,1-dimethylethyl oxy carbonyl))hydrazino)]ethyl-2-cyano pyrrolidine,
- 10 h) 1-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- i) 3-[1-Oxo-2-((1-phenyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 15 j) 1-[1-Oxo-2-(1-(2-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- k) 1-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 20 l) 1-[1-Oxo-2-((1-(1-methyl)ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- m) 1-[1-Oxo-2-((2,2-diethyl)-hydrazino)]ethyl-2-cyano thiazolidine,
- 25 n) 1-[1-Oxo-2-((1-ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- o) 3-[1-Oxo-2-(1-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 30 p) 3-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- q) 3-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate ,
- 35 r) 1-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- s) 3-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 40 t) 1-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- u) 3-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 45 v) 1-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- w) 3-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-4-cyano thiazolidine

- trifluoroacetate,
- 5 x) 1-[1-Oxo-2-((1-Phenyl sulphonyl)hydrazino)]ethyl-2-cyano pyrrolidine
trifluoroacetate,
- y) 3-[1-Oxo-2-((1-(4-methyl)cyclohexyl)hydrazino)]ethyl-4-cyano thiazolidine
trifluoroacetate,
- 10 z) 1-[1-Oxo-2-((4-Methyl)cyclohexyl)hydrazino)]ethyl-2-cyano pyrrolidine
trifluoroacetate,
- aa) 1-[1-Oxo-2-(1-(2-Pyridyl)-hydrazino)]ethyl-2-cyano pyrrolidine bis-
trifluoroacetate,
- 15 bb) 3-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-4-cyano thiazolidine
a. trifluoroacetate,
- cc) 3-[1-Oxo-2- ((1-(4-methyl) cyclohexyl)-hydrazino)] ethyl-4-cyano
thiazolidine trifluoroacetate,
- 20 dd) 1-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-2-cyano pyrrolidine
a. trifluoroacetate,
- 25 ee) [4-Cyano-3-(1-isopropylhydrazino)carbonyl thiazolidine hydrochloride],
ff) [2-Cyano-1-(1-cyclohexyl hydrazino)carbonyl pyrrolidine hydrochloride],
gg) [4-Cyano-3-(1-cyclohexylhydrazino)carbonyl thiazolidine hydrochloride],
- 30 hh) 1-[1-Oxo-2- (2-cyclohexyl) hydrazino] ethyl-2-cyanopyrrolidine
trifluoroacetate,
- 35 ii) [4-Cyano-3-(1-phenyl hydrazino) carbonyl thiazolidine trifluoroacetate],
- jj) 3-[1-Oxo-2- (1-cyclohexyl-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine
hydrochloride,
- 40 kk) 1-[1-Oxo-2-(4-methylcyclohexyl)hydrazino]ethyl-2-cyanopyrrolidine
trifluoroacetate,
- 45 ll) 1-[1-Oxo-2-(1-cyclohexyl-2-isopropyl)hydrazino]ethyl-2-cyano pyrrolidine ,
mm) 1-[1-Oxo-2-(1-(4-methylcyclohexylmethyl) hydrazino)]ethyl-2-
cyanopyrrolidine trifluoroacetate,

- nn) 1-[1-Oxo-2- (4-chlorophenyl) hydrazino] ethyl-2-cyanopyrrolidine
trifluoroacetate,
- 5 oo) 1-[1-Oxo-2-isopropyl-2-hydrazino] ethyl-2-cyano pyrrolidine trifluoroacetate,
- pp) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-ethyl) hydrazino] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 10 qq) 3-[1-Oxo-2- (1-(4-morpholinocarbonyl) hydrazino) ethyl]-4-cyanothiazolidine
trifluoroacetate,
- rr) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-isopropyl) hydrazino] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 15 ss) 1-[1-Oxo-2- [(1-cyclohexyl)-2-(2-cyano-1-pyrrolidino acetyl)] hydrazino]
ethyl-2-cyanopyrrolidine trifluoroacetate,
- 20 tt) 3-[1-Oxo-2- (1,2-bis- (2-(2-pyridyl) ethylaminocarbonyl) hydrazino)] ethyl-4-
cyano thiazolidine bis trifluoroacetate,
- uu) 3-[1-Oxo-2- (1-(4-tert-butyl cyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine
trifluoro acetate,
- 25 vv) 1-[1-Oxo-2- (1-tetralinyl) hydrazino] ethyl-2-cyanopyrrolidine
trifluoroacetate,
- ww) 3-[1-Oxo-2- (1-(4-tertbutylcyclohexyl) hydrazino)] ethyl-4-
cyanothiazolidine trifluoroacetate,
- 30 xx) 1-[1-Oxo-2- (1-cyclohexyl)-2-(4-cyano-3-thiazolidino acetyl)] hydrazino]
ethyl-2-cyano pyrrolidine,
- yy) 3-[1-Oxo-2- (1-isopropyl-4-piperidiny) hydrazino)] ethyl-4-cyano
thiazolidine trifluoroacetate,
- 35 zz) 3-[1-Oxo-2- (1-(1-(4-cyanophenylmethyl)-piperidin-4-yl) hydrazino)] ethyl-4-
cyanothiazolidine bis trifluoroacetate,
- 40 aaa) 3-[1-Oxo-2-[1-(4-methylcyclohexyl)-2-(1-(3-pyridinylmethyl)-4-
piperidiny)]hydrazino]ethyl-4-cyanothiazolidine,
- bbb) 3-[1-Oxo-2- [1-(4-methylcyclohexyl)-2-(1-isopropyl-4-piperidiny)] hydrazino]
ethyl-4-cyanothiazolidine,
- 45 ccc) 3-[1-Oxo-2- (1-(1-(4-methylphenylsulphonyl)-4-piperidiny)-hydrazino)]
ethyl-4-cyanothiazolidine trifluoroacetate,

- ddd) 3-[1-Oxo-2- [1-methyl-2- (1-(4-methylphenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 5 eee) 3-[1-Oxo-2- (1-(1-(3-pyridinemethyl)-4-piperidinyl) hydrazino)] ethyl-4-cyanothiazolidine tris trifluoroacetate,
- fff) 3-[1-Oxo-2- [1-methyl-2- (1-(4-cyanophenylmethyl) piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis trifluoroacetate,
- 10 ggg) 3-[1-Oxo-2- [1-methyl-2- (1-(3-pyridinylmethyl)-piperidin-4-yl)] hydrazino]ethyl-4-cyanothiazolidine tris trifluoroacetate,
- hhh) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoro acetate,
- 15 iii) 3-[1-Oxo-2- (1-(1-(4-nitrophenylmethyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- jjj) 3-[1-Oxo-2- [1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 kkk) 3-[1-Oxo-2- (1-(1-norcamphoranyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- lll) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate,
- mmm) 3-[1-Oxo-2-[1-(1-(4-methylcyclohexyl carbonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 30 nnn) 3-[1-Oxo-2-(1-(1-acetyl)-piperidin-4-yl)hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- ooo) 1,1-Dioxo-3-[1-oxo-2-(1-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 35 ppp) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine,
- qqq) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine,
- 40 rrr) 3-[1-Oxo-2-(1-(1-(2,3-dichlorophenyl carbonyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 45 sss) 3-[1-Oxo-2-[1-methyl-2-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl))-hydrazino] ethyl-4-cyanothiazolidine,

- ttt) 3-[1-Oxo-2-(1-(4-piperidiny) hydrazino)]ethyl-4-cyanothiazolidine bis trifluoroacetate,
- 5 uuu) [1-Oxo-2-(1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)-hydrazino)] ethyl -2- cyanopyrrolidine trifluoroacetate,
- vvv) 3-[1-Oxo-2-(1-(4-methylcyclohexyl)-2-acetyl) hydrazino]ethyl-4-cyanothiazolidine,
- 10 www) 3-[1-Oxo-2-(1-(1-adamantanyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- xxx) 3-[1-Oxo-2-(1-(1-(tert-butyl carbonyl)-piperidin-4-yl) hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate,
- 15 yyy) 3-[1-Oxo-2-(1-(1-(5-trifluoromethyl-2-pyridinyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyano thiazolidine bis trifluoroacetate,
- zzz) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate,
- 20 aaaa) 3-[1-Oxo-2- (1-(3,3,5-trimethyl cyclohexyl)-hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate,
- 25 bbbb) 3-[1-Oxo-2-(1-isopropyl-2-ethyl)-hydrazino]-ethyl-4-cyanothiazolidine trifluoroacetate ,
- cccc) 3-[1-Oxo-2-[1-(1-phenylmethyl-piperidin-4-yl)]-hydrazino]-ethyl-4- cyanothiazolidine trifluoroacetate,
- 30 dddd) 3-[1-Oxo-2-(1-(1-(4-chlorophenyl sulphonylamino-4-cyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- eeee) 3-[1-Oxo-2-(pyridazin-1-yl)] ethyl-4-cyanothiazolidine,
- 35 ffff) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- gggg) 3-[1-oxo-2-[1-(1(morpholinocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyano- thiazolidine trifluoroacetate,
- 40 hhhh) 3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 45 iiiii) 3-[1-oxo-2-[1-(1(methylsulphonyl)-piperidin-4-yl)-2-isopropyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate ,
- jjjj) 3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-

cyanothiazolidine trifluoroacetate,

kkkk) 3-[1-oxo-2-[1-(1-(morpholinocarbonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,

llll) 3-[1-oxo-2-[1-(1-(N-ethylmethylaminocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,

mmmm) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,

nnnn) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)aminocyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,

oooo) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)aminocyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

pppp) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

qqqq) 3-[1-oxo-2-[(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine tris-trifluoroacetate,

rrrr) 3-[1-oxo-2-[1-(1-(trimethyl acetamido)cyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,

ssss) 3-[1-oxo-2-[1-(1-(methanesulphonyl)aminocyclohexan-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine,

tttt) 3-[1-oxo-2-[(1-(1-(trimethyl acetamido) cyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,

uuuu) 3-[1-oxo-2-[1-(1-(2-oxo-2-(4-cyanophenyl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

vvvv) 3-[1-oxo-2-[1-(4-fluorobenzoyl)aminocyclohexan-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,

wwww) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl)]-2-ethylhydrazino]ethyl-4-cyanothiazolidine tris-hydrochloride,

xxxx) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-trifluorophenyl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

yyyy) 3-[1-oxo-2-[1-(1-(2-oxo-2(-adamant-1-yl)amino ethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

zzzz) 3-[1-oxo-2-[1-(1-(2-oxo-2(2,3-dihydrobenzo(1,4)dioxan-6-yl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyano-thiazolidine bis-trifluoroacetate,

5 aaaaa) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-chlorophenyl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

bbbbbb) 3[2-oxo-2-[1-(1-(2-oxo-2(pyrimidin-2-yl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine tris-trifluoroacetate,

10 ccccc) 3-[1-oxo-2-[1-(1-(2-oxo-2(morpholin-4-yl)ethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

15 ddddd) 3[1-oxo-2-[1-(1-(2-oxo-2(cyclopropyl)aminoethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

eeee) 3-[1-oxo-2-[1-(1-(2-cyanobiphenyl-4-yl)methyl)piperidine-4-yl]]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

20 fffff) 3-[1-oxo-2-[1-(1-(1-oxo-2(morpholin-4-yl)ethyl)piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

ggggg) 3-[1-oxo-2-[1-(4-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine tris-trifluoroacetate,

25 hhhhh) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-cyanophenyl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate ,

30 iiiii) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-chlorophenyl)aminoethyl)aminocyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

jjjjj) 3-[1-oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)hydrazino)]ethyl-4-cyanothiazolidine hydrochloride and

35 kkkkk) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidine-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trihydrochloride.

29. The method as claimed in claim 26, wherein the said compound is selected from the group consisting of :-

40

lllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-(s)-(+)-4-cyanothiazolidine tris-trifluoroacetate

45 mmmmm) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-bromothiazol-2-yl)aminoethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

nnnnn) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4,5-dimethylthiazole-2-yl) aminoethyl) piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

5

ooooo) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-cyanopyridin-2-yl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

ppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloropyridyl-3-yl)aminoethyl) piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

10

qqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-fluorobenzyl)amino ethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate

rrrrr) 3-[1-oxo-2-(1-(1-phenoxyethyl)piperidin-4-yl)hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

15

sssss) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)amino ethyl) piperidin-4-yl))hydrazino] ethyl-2-cyanopyrrolidine, tris-trifluoroacetate.

20

ttttt) 3-[1-oxo-2-(1-(1-(2-oxo-2-cyclohexyl)aminoethyl)piperidin-4-yl)hydrazino]ethyl-4-cyanothiazoline, bis-trifluoroacetate.

uuuuu) 3-[(1-oxo-2-(1-(1-(2-oxo-2-(3-isopropoxy propan-1-yl)amino ethyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

25

vvvvv) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-(thiophene-2-yl) ethyl) aminoethyl) piperidine-4-yl))hydrazino]ethyl - 4- cyanothiazolidine, bis-trifluoroacetate.

30

wwwww) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3-chloro-4-fluorophenyl)aminoethyl) piperidine-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

xxxxx) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-ethoxycarbonyl methyl thiazole-2-yl) amino ethyl) piperidine-4-yl)) hydrazino] ethyl -4-cyanothiazolidine, tris-trifluoroacetate.

35

yyyyy) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3,4-methelenedioxyphenyl) amino ethyl) piperidine -4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

40

zzzzz) 3-[1-oxo-2-(1-(1-(3-oxo-3-cyclopropyl)amino propyl)piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate

aaaaa) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl) amino ethyl) piperidine-4-yl)-2-methoxycarbonyl) hydrazino]ethyl-4-cyanothiazolidine, trihydrochloride.

45

bbbbbb) 3-[1-oxo-2-(1-(1-(2-oxo-2-(thiazole-2-yl)-aminoethyl)piperidin-4-yl))hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

5 cccccc) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-methoxyethyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis -trifluoroacetate.

dddddd) 3-[1-oxo-2-(1-(1-(2-oxo-2-(pyridin-2-yl)aminoethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

10

eeeeee) 3-[1-oxo-2-(1-(1-(3-pyridylacetyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

ffffff) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

15

gggggg) 3-[1-oxo-2-(1-(1-(5-methylpyrazine-2-ylcarbonyl)amino-4-cyclohexyl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

20

hhhhhh) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-cyano pyridin-2-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

iiiiii) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloro pyridin-3-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

25

jjjjjj) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-amino sulphonyl phenyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.

kkkkkk) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-chlorophenyl)aminoethyl)piperidin-4-yl))ydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.

30

llllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)aminoethyl)piperidine-4-yl)) hydrazine]ethyl-4-cyanothiazolidine, trihydrochloride.

35

mmmmmm) 3-[1-oxo-2-(1-(1-(2-(4,5-dimethylthiazole-2-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

nnnnnn) 3-[1-oxo-2-(1-(1-(2-cyclopropyl-1-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride and

40

oooooo) 3-[1-oxo-2-(2-ter-butylloxycarbonyl) hydrazino] ethyl-4-cycyanooxazolidine.

45

30. The method as claimed in claim 27, wherein the said compound is selected from the group consisting of :-

pppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-amino)ethyl)piperidine-4-yl))hydrazino]
ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

5 qqqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-aminosulphonylphenyl) aminoethyl)
piperidin-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

10 31. A method of treating a mammal including human being in disease conditions
caused by accumulation of free radicals in the body cells which comprises
administering an effective amount of compound of general formula I as defined in
claim 1, its stereoisomers or its pharmaceutically acceptable salts in association with
a pharmaceutically acceptable carrier, diluent or excepiant to a mammal in need
15 thereof.

32. A method of treating a mammal including human being in disease conditions
caused by accumulation of free radicals in the body cells which comprises
administering an effective amount of compound of general formula I as defined in
20 claim 2 , its stereoisomers or its pharmaceutically acceptable salts in association with
a pharmaceutically acceptable carrier, diluent or excepiant to a mammal in need
thereof

33. The method as claimed in claim 31, wherein the said compound is selected from
25 the group consisting of :

- a) [2-Cyano-1-(piperazine-2-yl)-carbonyl pyrrolidine bis-trifluoroacetate],
- b) [2-Cyano-1-(4-isopropyl-2-piperazinyl)-carbonyl-pyrrolidine bis trifluoroacetate],
- 30 c) 1-[1-Oxo-2-((1-phenyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- d) 1-[1-Oxo-2-(1-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 35 e) 3-[1-Oxo-2-((2-(1,1-dimethyl ethyl oxy carbonyl))hydrazino)]ethyl-4-cyano
thiazolidine,
- f) 1-[1-Oxo-2-((2-(1,1-dimethylethyloxy carbonyl))-1-phenyl hydrazino)]ethyl-
2-cyano pyrrolidine,
- 40

- g) 1-[1-Oxo-2-((2-(1,1-dimethylethyl oxy carbonyl))hydrazino)]ethyl-2-cyano pyrrolidine,
- 5 h) 1-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- i) 3-[1-Oxo-2-((1-phenyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 10 j) 1-[1-Oxo-2-(1-(2-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- k) 1-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 15 l) 1-[1-Oxo-2-((1-(1-methyl)ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- m) 1-[1-Oxo-2-((2,2-diethyl)-hydrazino)]ethyl-2-cyano thiazolidine,
- 20 n) 1-[1-Oxo-2-((1-ethyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- o) 3-[1-Oxo-2-(1-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 25 p) 3-[1-Oxo-2-((1-phenylmethyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- q) 3-[1-Oxo-2-((1-(4-nitrophenylmethyl))hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate ,
- 30 r) 1-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- s) 3-[1-Oxo-2-((1-Cyclopentyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- 35 t) 1-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- u) 3-[1-Oxo-2-((1-Cyclohexyl)-hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- v) 1-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 40 w) 3-[1-Oxo-2-((1-methylpropyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,
- x) 1-[1-Oxo-2-((1-Phenyl sulphonyl)hydrazino)]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 45 y) 3-[1-Oxo-2-((1-(4-methyl)cyclohexyl)hydrazino)]ethyl-4-cyano thiazolidine trifluoroacetate,

- z) 1-[1-Oxo-2-((4-Methyl)cyclohexyl)hydrazino]]ethyl-2-cyano pyrrolidine trifluoroacetate,
- 5 aa) 1-[1-Oxo-2-(1-(2-Pyridyl)-hydrazino)]ethyl-2-cyano pyrrolidine bis-trifluoroacetate,
- bb) 3-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-4-cyano thiazolidine
a. trifluoroacetate,
- 10 cc) 3-[1-Oxo-2- ((1-(4-methyl) cyclohexyl)-hydrazino)] ethyl-4-cyano thiazolidine trifluoroacetate,
- dd) 1-[1-Oxo-2- ((1-Cycloheptyl)-hydrazino)] ethyl-2-cyano pyrrolidine
a. trifluoroacetate,
- 15 ee) [4-Cyano-3-(1-isopropylhydrazino)carbonyl thiazolidine hydrochloride],
- ff) [2-Cyano-1-(1-cyclohexyl hydrazino)carbonyl pyrrolidine hydrochloride],
- 20 gg) [4-Cyano-3-(1-cyclohexylhydrazino)carbonyl thiazolidine hydrochloride],
- hh) 1-[1-Oxo-2- (2-cyclohexyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,
- 25 ii) [4-Cyano-3-(1-phenyl hydrazino) carbonyl thiazolidine trifluoroacetate],
- jj) 3-[1-Oxo-2- (1-cyclohexyl-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine hydrochloride,
- 30 kk) 1-[1-Oxo-2-(4-methylcyclohexyl)hydrazino]]ethyl-2-cyanopyrrolidine trifluoroacetate,
- 35 ll) 1-[1-Oxo-2-(1-cyclohexyl-2-isopropyl)hydrazino]]ethyl-2-cyano pyrrolidine ,
- mm) 1-[1-Oxo-2-(1-(4-methylcyclohexylmethyl) hydrazino)]ethyl-2-cyanopyrrolidine trifluoroacetate,
- 40 nn) 1-[1-Oxo-2- (4-chlorophenyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,
- oo) 1-[1-Oxo-2-isopropyl-2-hydrazino] ethyl-2-cyano pyrrolidine trifluoroacetate,
- 45 pp) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-ethyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,

- qq) 3-[1-Oxo-2- (1-(4-morpholinocarbonyl) hydrazino) ethyl]-4-cyanothiazolidine trifluoroacetate,
- 5 rr) 3-[1-Oxo-2- (1-(4-methylcyclohexyl)-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- ss) 1-[1-Oxo-2- [(1-cyclohexyl)-2-(2-cyano-1-pyrrolidino acetyl)] hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,
- 10 tt) 3-[1-Oxo-2- (1,2-bis- (2-(2-pyridyl) ethylaminocarbonyl) hydrazino)] ethyl-4-cyano thiazolidine bis trifluoroacetate,
- uu) 3-[1-Oxo-2- (1-(4-tert-butyl cyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoro acetate,
- 15 vv) 1-[1-Oxo-2- (1-tetralinyl) hydrazino] ethyl-2-cyanopyrrolidine trifluoroacetate,
- ww) 3-[1-Oxo-2- (1-(4-tertbutylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 xx) 1-[1-Oxo-2- (1-cyclohexyl)-2-(4-cyano-3-thiazolidino acetyl)] hydrazino] ethyl-2-cyano pyrrolidine,
- yy) 3-[1-Oxo-2- (1-isopropyl-4-piperidiny] ethyl-4-cyano thiazolidine trifluoroacetate,
- zz) 3-[1-Oxo-2- (1-(1-(4-cyanophenylmethyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine bis trifluoroacetate,
- 30 aaa) 3-[1-Oxo-2-[1-(4-methylcyclohexyl)-2-(1-(3-pyridinylmethyl)-4-piperidiny]]hydrazino]ethyl-4-cyanothiazolidine,
- bbb) 3-[1-Oxo-2- [1-(4-methylcyclohexyl)-2-(1-isopropyl-4-piperidiny]] hydrazino] ethyl-4-cyanothiazolidine,
- 35 ccc) 3-[1-Oxo-2- (1-(1-(4-methylphenylsulphonyl)-4-piperidiny]-hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- ddd) 3-[1-Oxo-2- [1-methyl-2- (1-(4-methylphenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- eee) 3-[1-Oxo-2- (1-(1-(3-pyridinemethyl)-4-piperidiny] ethyl-4-cyanothiazolidine tris trifluoroacetate,
- 45 fff) 3-[1-Oxo-2- [1-methyl-2- (1-(4-cyanophenylmethyl) piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine bis trifluoroacetate,
- ggg) 3-[1-Oxo-2- [1-methyl-2- (1-(3-pyridinylmethyl)-piperidin-4-yl)]

- hydrazino]ethyl-4-cyanothiazolidine tris trifluoroacetate,
- hhh) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoro acetate,
- 5 iii) 3-[1-Oxo-2- (1-(1-(4-nitrophenylmethyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 10 jjj) 3-[1-Oxo-2- [1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- kkk) 3-[1-Oxo-2- (1-(1-norcamphoranyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 15 ll) 3-[1-Oxo-2- (1-(4-n propylcyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate,
- mmm) 3-[1-Oxo-2-[1-(1-(4-methylcyclohexyl carbonyl)-piperidin-4-yl)] hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 nnn) 3-[1-Oxo-2-(1-(1-acetyl)-piperidin-4-yl)hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- ooo) 1,1-Dioxo-3-[1-oxo-2-(1-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 25 ppp) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine,
- 30 qqq) 3-[1-Oxo-2-(1-methyl-2-(4-methylcyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine,
- rrr) 3-[1-Oxo-2-(1-(1-(2,3-dichlorophenyl carbonyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 35 sss) 3-[1-Oxo-2-[1-methyl-2-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)]-hydrazino] ethyl-4-cyanothiazolidine,
- 40 ttt) 3-[1-Oxo-2-(1-(4-piperidinyl) hydrazino)]ethyl-4-cyanothiazolidine bis trifluoroacetate,
- uuu) [1-Oxo-2-(1-(1-(4-chlorophenylsulphonyl)-piperidin-4-yl)-hydrazino)] ethyl -2- cyanopyrrolidine trifluoroacetate,
- 45 vvv) 3-[1-Oxo-2-(1-(4-methylcyclohexyl)-2-acetyl) hydrazino]ethyl-4-cyanothiazolidine,

- www) 3-[1-Oxo-2-(1-(1-adamantanyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 5 xxx) 3-[1-Oxo-2-(1-(1-(tert-butyl carbonyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- yyy) 3-[1-Oxo-2-(1-(1-(5-trifluoromethyl-2-pyridinyl)-piperidin-4-yl) hydrazino)] ethyl-4-cyano thiazolidine bis trifluoroacetate,
- 10 zzz) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl) hydrazino)] ethyl-4- cyanothiazolidine trifluoroacetate,
- aaaa) 3-[1-Oxo-2- (1-(3,3,5-trimethyl cyclohexyl)-hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 15 bbbb) 3-[1-Oxo-2-(1-isopropyl-2-ethyl)-hydrazino]-ethyl-4-cyanothiazolidine trifluoroacetate ,
- cccc) 3-[1-Oxo-2-[1-(1-phenylmethyl-piperidin-4-yl)]-hydrazino]-ethyl-4-cyanothiazolidine trifluoroacetate,
- 20 dddd) 3-[1-Oxo-2-(1-(1-(4-chlorophenyl sulphonylamino-4-cyclohexyl) hydrazino)] ethyl-4-cyanothiazolidine trifluoroacetate,
- 25 eeee) 3-[1-Oxo-2-(pyridazin-1-yl)] ethyl-4-cyanothiazolidine,
- ffff) 3-[1-Oxo-2-(1-(1-methanesulphonylamino-4-cyclohexyl)-2-isopropyl) hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- 30 gggg) 3-[1-oxo-2-[1-(1(morpholinocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyano-thiazolidine trifluoroacetate,
- hhhh) 3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 35 iii)3-[1-oxo-2-[1-(1(methylsulphonyl)-piperidin-4-yl)-2-isopropyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate ,
- jjjj)3-[1-oxo-2-[1-(1-(methylsulphonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 40 kkkk) 3-[1-oxo-2-[1-(1-(morpholinocarbonyl)-piperidin-4-yl)-2-ethyl]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 45 llll)3-[1-oxo-2-[1-(1-(N-ethylmethylaminocarbonyl)-piperidin-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- mmmm) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)-piperidin-4-

- yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- 5 nnnn) 3-[1-oxo-2-[1-(1-(4-methoxyphenylsulphonyl)aminocyclohexan-4-yl)]
hydrazino] ethyl-4-cyanothiazolidine trifluoroacetate,
- oooo) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)aminocyclohexan-4-
yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- 10 pppp) 3-[1-oxo-2-[1-(1-(4-fluorobenzyl)-piperidin-4-yl)]hydrazino]ethyl-4-
cyanothiazolidine bis-trifluoroacetate,
- qqqq) 3-[1-oxo-2-[(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-
4-yl)]hydrazino]ethyl -4-cyanothiazolidine tris-trifluoroacetate,
- 15 rrrr) 3-[1-oxo-2-[1-(1-(trimethyl acetamido)cyclohexan-4-
yl)]hydrazino]ethyl-4-cyanothiazolidine trifluoroacetate,
- ssss) 3-[1-oxo-2-[1-(1-(methanesulphonyl)aminocyclohexan-4-yl)-2-ethyl]
20 hydrazino] ethyl-4-cyanothiazolidine,
- ttt)3-[1-oxo-2-[(1-(trimethyl acetamido) cyclohexan-4-yl)]hydrazino]ethyl-4-
cyanothiazolidine trifluoroacetate,
- 25 uuuu) 3-[1-oxo-2-[1-(1-(2-oxo-2-(4-cyanophenyl)aminoethyl)piperidin-4-yl)]
hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- vvvv) 3-[1-oxo-2-[1-(4-fluorobenzoyl)aminocyclohexan-4-yl)]hydrazino]
ethyl-4-cyanothiazolidine trifluoroacetate,
- 30 www) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)piperidin-4-
yl)]-2-ethylhydrazino] ethyl-4-cyanothiazolidine tris-hydrochloride,
- xxxx) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-trifluorophenyl)aminoethyl)piperidin-4-
yl)] hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,
- yyyy) 3-[1-oxo-2-[1-(1-(2-oxo-2(-adamant-1-yl)amino ethyl)piperidin-4-yl)]
40 hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,
- zzzz) 3-[1-oxo-2-[1-(1-(2-oxo-2(2,3-dihydrobenzo(1,4)dioxan-6-yl)aminoethyl)
piperidin-4-yl)] hydrazino] ethyl-4-cyano-thiazolidine bis-trifluoroacetate,
- aaaaa) 3-[1-oxo-2-[1-(1-(2-oxo-2(4-chlorophenyl)aminoethyl)piperidin-4-yl)]
45 hydrazino] ethyl -4-cyanothiazolidine bis-trifluoroacetate,
- bbbbbb) 3[2-oxo-2-[1-(1-(2-oxo-2(pyrimidin-2-yl)aminoethyl)piperidin-4-yl)]
hydrazino] ethyl -4-cyanothiazolidine tris-trifluoroacetate,

cccc) 3-[1-oxo-2-[1-(1-(2-oxo-2(morpholin-4-yl)ethyl)piperidin-4-yl)]
hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,

5 dddd) 3[1-oxo-2-[1-(1-(2-oxo-2-(cyclopropyl)aminoethyl)piperidin-4-yl)]hydrazino]
ethyl-4-cyanothiazolidine bis-trifluoroacetate,

10 eeee) 3-[1-oxo-2-[1-(1-(2-cyanobiphenyl-4-yl)methyl)piperidine-4-
yl]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

ffff) 3-[1-oxo-2-[1-(1-(1-oxo-2-(morpholin-4-yl)ethyl)piperidin-4-yl)]
hydrazino] ethyl-4-cyanothiazolidine bis-trifluoroacetate,

15 gggg) 3-[1-oxo-2-[1-(4-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)amino
cyclohex-1-yl)]hydrazino]ethyl-4-cyanothiazolidine tris-trifluoroacetate,

hhhhh) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-cyanophenyl)aminoethyl)aminocyclohex-
1-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate ,

20 iiiii) 3-[1-oxo-2-[1-(4-(2-oxo-2-(4-chlorophenyl)aminoethyl)aminocyclohex-
1-yl)]hydrazino]ethyl-4-cyanothiazolidine bis-trifluoroacetate,

25 jjjjj) 3-[1-oxo-2-(1-(1-methanesulphonylamino-4-
cyclohexyl)hydrazino)]ethyl-4-cyanothiazolidine hydrochloride and

kkkkk) 3-[1-oxo-2-[1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl)
piperidine-4-yl)]hydrazino]ethyl-4-cyanothiazolidine trihydrochloride

30 34. The method as claimed in claim 31, wherein the said compound is selected from
the group consisting of :

35 lllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)aminoethyl) piperidin-4-
yl)) hydrazino]ethyl(s)-(+)4-cyanothiazolidine tris-trifluoroacetate

mmmmm) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-bromothiazol-2-yl)aminoethyl)
piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

40 nnnnn) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4,5-dimethylthiazole-2-yl) aminoethyl)
piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

ooooo) 3-[1-oxo-2-(1-(1-(2-oxo-2(5-cyanopyridin-2-yl)aminoethyl) piperidin-4-
yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

45 ppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloropyridyl-3-yl)aminoethyl)
piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

- qqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-fluorobenzyl)amino ethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate
- 5 rrrrr) 3-[1-oxo-2-(1-(1-phenoxyethyl)piperidin-4-yl)hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- sssss) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl)amino ethyl) piperidin-4-yl))hydrazino] ethyl-2-cyanopyrrolidine, tris-trifluoroacetate.
- 10 ttttt) 3-[1-oxo-2-(1-(1-(2-oxo-2-cyclohexyl)aminoethyl)piperidin-4-yl)hydrazino]ethyl-4-cyanothiazoline, bis-trifluoroacetate.
- uuuuu) 3-[(1-oxo-2-(1-(1-(2-oxo-2-(3-isopropoxy propan-1-yl)amino ethyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 15 vvvvv) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-(thiophene-2-yl) ethyl) aminoethyl) piperidine-4-yl))hydrazino]ethyl - 4- cyanothiazolidine, bis-trifluoroacetate.
- wwwww) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3-chloro-4-fluoro-phenyl)aminoethyl) piperidine-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 20 xxxxx) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-ethoxycarbonyl methyl thiazole-2-yl) amino ethyl) piperidine-4-yl)) hydrazino] ethyl -4-cyanothiazolidine, tris-trifluoroacetate.
- 25 yyyyy) 3-[1-oxo-2-(1-(1-(2-oxo-2-(3,4-methelenedioxyphenyl) amino ethyl) piperidine -4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.
- 30 zzzzz) 3-[1-oxo-2-(1-(1-(3-oxo-3-cyclopropyl)amino propyl)piperidin-4-yl)) hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate
- aaaaa) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-chloropyridin-2-yl) amino ethyl) piperidine-4-yl)-2-methoxycarbonyl) hydrazino]ethyl-4-cyanothiazolidine, trihydrochloride.
- 35 bbbbbb) 3-[1-oxo-2-(1-(1-(2-oxo-2-(thiazole-2-yl)-aminoethyl)piperidin-4-yl))hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- 40 cccccc) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-methoxyethyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis -trifluoroacetate.
- dddddd) 3-[1-oxo-2-(1-(1-(2-oxo-2-(pyridin-2-yl)aminoethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.
- 45 eeeee) 3-[1-oxo-2-(1-(1-(3-pyridylacetyl) piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

fffff) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)piperidine-4-yl))hydrazino] ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

5 ggggg) 3-[1-oxo-2-(1-(1-(5-methylpyrazine-2-ylcarbonyl)amino-4-cyclohexyl))hydrazino]ethyl-4-cyanothiazolidine, tris-trifluoroacetate.

hhhhh) 3-[1-oxo-2-(1-(1-(2-oxo-2-(5-cyano pyridin-2-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

10 iiiii) 3-[1-oxo-2-(1-(1-(2-oxo-2-(2-chloro pyridin-3-yl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

jjjjj) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-amino sulphonyl phenyl)aminoethyl)piperidin-4-yl))hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.

15 kkkkk) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-chlorophenyl)aminoethyl)piperidin-4-yl))ydrazino]ethyl-4-cyano thiazolidine, dihydrochloride.

20 lllll) 3-[1-oxo-2-(1-(1-(2-oxo-2-(benzothiazole-2-yl)aminoethyl)piperidine-4-yl)) hydrazine]ethyl-4-cyanothiazolidine, trihydrochloride.

mmmmm) 3-[1-oxo-2-(1-(1-(2-(4,5-dimethylthiazole-2-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, trihydrochloride.

25 nnnnn) 3-[1-oxo-2-(1-(1-(2-cyclopropyl-1-yl)aminoethyl)piperidin-4-yl)) hydrazino]ethyl-4-cyano thiazolidine, dihydrochloride and

30 ooooo) 3-[1-oxo-2-(2-ter-butyloxycarbonyl) hydrazino] ethyl-4-cyanooxazolidine.

35. The method as claimed in claim 32, wherein the said compound is selected from the group consisting of :

35 ppppp) 3-[1-oxo-2-(1-(1-(2-oxo-2-amino)ethyl)piperidine-4-yl))hydrazino]ethyl-4-cyanothiazolidine, bis-trifluoroacetate and

qqqqq) 3-[1-oxo-2-(1-(1-(2-oxo-2-(4-aminosulphonylphenyl) aminoethyl)piperidin-4-yl)) hydrazino] ethyl-4-cyanothiazolidine, bis-trifluoroacetate.

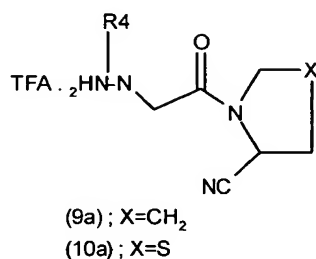
40

36. The method as claimed in claim 31 wherein the said disease condition is selected from the group consisting of (a) Neurodegenerative disorders such as Alzheimer's Disease, Parkinson's Disease, Huntington's Disease, Motor Neuron Disease and Prion Disease, (b) Diabetes and Diabetic Vascular Complications, (c) Intestinal Diseases

such as Intestinal Ischemia, Radiation Enteritis, Inflammatory Bowel Disease, Gastric and Colorectal Cancers, (d) Liver Diseases such as Alcoholic Liver Disease and Chronic Hepatitis C etc, (e) Cancers such as Lung Cancer, Colorectal Cancer, Cervical Cancer, Breast Cancer and Malignant Melanoma, (f) Cardiac Diseases such as Atherosclerosis, Myocardial Infarction, Ischemic Stroke and Endothelial Dysfunction, (g) Ophthalmic Disorders such as Cataract formation and Macular degeneration, (h) HIV Diseases, (i) Respiratory Diseases such as Chronic Obstructive Pulmonary Diseases and Asthma and (j) Renal Diseases such as Glomerulonephritis and Acute Renal Failure.

37. The method as claimed in claim 32 wherein the said disease condition is selected from the group consisting of (a) Neurodegenerative disorders such as Alzheimer's Disease, Parkinson's Disease, Huntington's Disease, Motor Neuron Disease and Prion Disease, (b) Diabetes and Diabetic Vascular Complications, (c) Intestinal Diseases such as Intestinal Ischemia, Radiation Enteritis, Inflammatory Bowel Disease, Gastric and Colorectal Cancers, (d) Liver Diseases such as Alcoholic Liver Disease and Chronic Hepatitis C etc, (e) Cancers such as Lung Cancer, Colorectal Cancer, Cervical Cancer, Breast Cancer and Malignant Melanoma, (f) Cardiac Diseases such as Atherosclerosis, Myocardial Infarction, Ischemic Stroke and Endothelial Dysfunction, (g) Ophthalmic Disorders such as Cataract formation and Macular degeneration, (h) HIV Diseases, (i) Respiratory Diseases such as Chronic Obstructive Pulmonary Diseases and Asthma and (j) Renal Diseases such as Glomerulonephritis and Acute Renal Failure.

38. A process for preparation of compounds of formula 9a and 10a



wherein R4 has the same meaning as defined in claim 1 and “Boc” in process step (a) below stands for “tertiary Butyloxy Carbonyl”,

comprising the steps of :

5

a) reacting chloroacyl-2-cyanopyrrolidine or chloroacyl-4-cyanothiazolidine with appropriate N-substituted Boc-carbazate using aprotic solvents in presence of a base at 40-110⁰C for 8-50 hrs , wherein N-substituted Boc-carbazate obtained from alkyl halide and

10

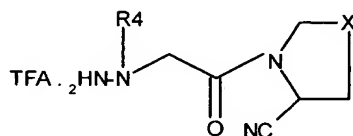
b) deprotecting resulting coupled product using trifluoroacetic acid at 5-30⁰C for 0.25-2 hrs to obtain the desired product.

39. The process as claimed in claim 38, wherein in step (a) of the process said aprotic solvent used is selected from acetonitrile, tetrahydrofuran, dimethylformamide or dioxane and said base used is selected from tertiary amine or alkali carbonate.

40. The process as claimed in claim 39, wherein in step (a) of the process said aprotic solvent used is tetrahydrofuran and said base used is potassium carbonate in presence of catalytic amount of potassium iodide.

15

41. A process for preparation of compounds of formula 13 and 14



(13) ; X=CH₂

(14) ; X=S

20

wherein

R4 has the same meaning as defined in claim 1 and “Boc” in process step (a) below stands for “tertiary Butyloxy Carbonyl”,

comprising the steps of :

5 a) reacting chloroacyl-2-cyanopyrrolidine or chloroacyl-4-cyanothiazolidine with appropriate N-substituted Boc-carbazate using aprotic solvents in presence of a base at 40-110⁰C for 8-50 hrs , wherein said N-substituted Boc-carbazate is obtained from aldehyde and ketone and

b) deprotecting resulting coupled product using trifluoroacetic acid at 5-30⁰C for 0.25-2 hrs to obtain the desired product.

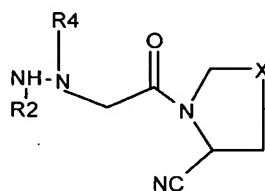
10

42. The process as claimed in claim 41, wherein in step (a) of the process said aprotic solvent used is selected from acetonitrile, tetrahydrofuran, dimethylformamide or dioxane and said base used is selected from tertiary amine or alkali carbonate.

15 43. The process as claimed in claim 42 wherein in step (a) of the process said aprotic solvent used is tetrahydrofuran and said base used is potassium carbonate in presence of catalytic amount of potassium iodide.

44. A process for preparation of compounds of formula 9c and 10c

20



(9c) ; X=CH₂

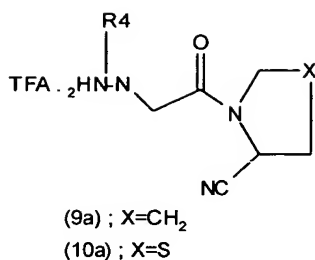
(10c) ; X=S

wherein

R⁴ and R² have the same meaning as defined in claim 1,

25 comprising the steps of :

a) reacting N-1-substituted hydrazinoacyl derivative of cyanothiazolidine (formula-9a) or cyanopyrrolidine (formula-10a).



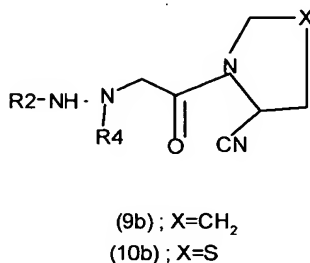
with acid chlorides/sulfonyl chloride in presence of a base in an aprotic solvent at
5 0-30°C for 1-8 hrs and

b) isolating compounds of formula 9c or 10c thus produced.

45. The process as claimed in claim 44, wherein in step (a) of the process said base
10 used is selected from tertiaryamine or pyridine and said aprotic solvent used is
selected from acetonitrile tetrahydrofuran, dimethylformamide, dioxane,
dichloromethane or chloroform.

46. The process as claimed in claim 45 wherein in step (a) of the process said base
15 used is triethylamine and aprotic solvent used is tetrahydrofuran .

47. A process for preparation of compounds of formula 9b and 10b



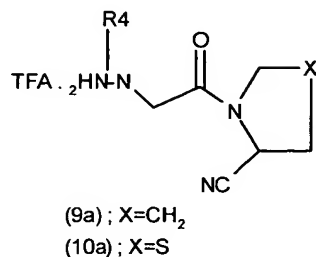
wherein

20

R4 and R2 have the same meaning as defined in claim 1,

comprising the steps of :

a) reacting a substituted aldehyde or ketone required to form R2 as defined in Claim 1 with compound of formula 9a and 10a



at 20-70⁰C for 0.5-6 hrs in alcoholic solvents to give rise to corresponding Schiff base and

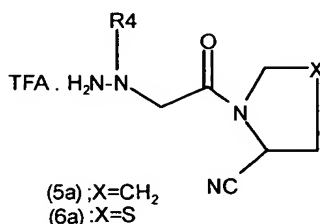
10 b) reduction of the Schiff base using metal hydride in presence of catalytic amount of titanium tetrachloride in alcoholic solvent to give the corresponding target compound.

48. The process as claimed in claim 47, wherein in step (a) of the process said alcoholic solvent used is selected from methanol, ethanol or isopropanol and in
15 step (b) of the process said metal hydride used is selected from sodium cyanoborohydride or sodium borohydride.

49. The process as claimed in claim 47, wherein in step (a) of the process said alcoholic solvent is methanol and said metal hydride used is sodium cyanoborohydride.

20

50. A process for preparation of compounds of formula 5a and 6a



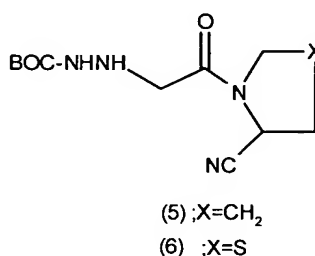
wherein

R4 has the same meaning as defined in claim 1 and "Boc" in process step (a) below stands for "tertiary Butyloxy Carbonyl",

5

comprising the steps of :

10 a) reacting chloroacyl-2-cyanopyrrolidine or chloroacyl-4-cyanothiazolidine with Boc-carbazate using aprotic solvents in presence of a base with catalytic amount of potassium iodide at 40-110°C for 6-50 hrs to give compound of formula 5 or 6 respectively,



15 b) reacting compound of formula 5 or 6 from step 1 above, with appropriate carbonyl chloride or acid chloride or sulphonyl chloride in presence of a base in an aprotic solvent at 0-30°C for 0.5-6 hrs and

c) deprotecting compounds obtained in step(b) using trifluoroacetic acid at 0-30°C for 0.25-2 hrs to give the corresponding target compound of formula 5a or 6a respectively.

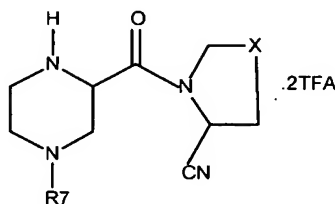
20 51. The process as claimed in claim 50, wherein in step (a) of the process said aprotic solvent used is selected from acetonitrile, tetrahydrofuran, dimethylformamide or dioxane and the said base used is selected from alkali or alkali earth metal carbonates or tertiaryamine and in step (b) of the process the said base used is selected from tertiaryamine, pyridine and said aprotic solvent is selected from acetonitrile, tetrahydrofuran, dimethylformamide or dioxane.

25

52. The process as claimed in claim 50 wherein in step (a) of the process said aprotic

solvent used is tetrahydrofuron and said base used is potassium carbonate in presence of catalytic amount of potassium iodide and in step (b) of the process said base used is triethylamine and said aprotic solvent used is tetrahydrofuran.

- 5 53. A process for preparation of compounds of formula 31 and 32



31 ; X = CH₂

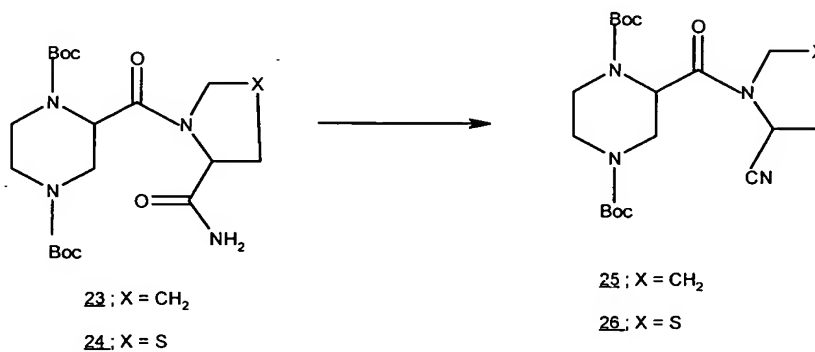
32 ; X = S

wherein

- 10 R7 has the same meaning as defined in claim 1 and the substituents "Boc" in the structural formulae 23 – 28 as given below stand for " tertiary Butyloxy Carbonyl",

comprising the steps of :

- 15 a) reacting diboc protected compound of formula 23 or 24 with trifluoroacetic anhydride in aprotic solvents at 0-30⁰C for 1-40 hrs to give compound of formula 25 or 26 respectively,



23 ; X = CH₂

24 ; X = S

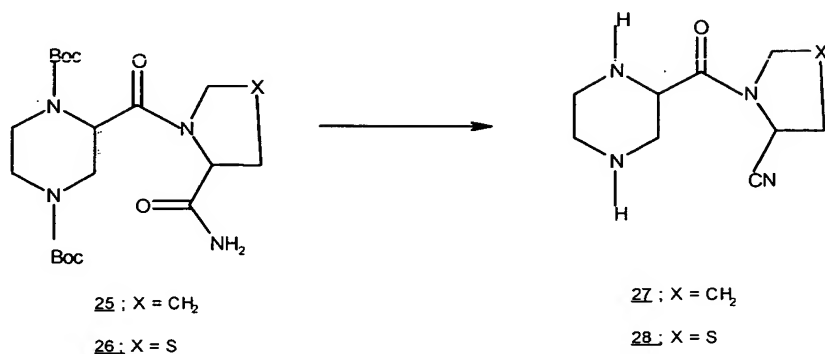
25 ; X = CH₂

26 ; X = S

20

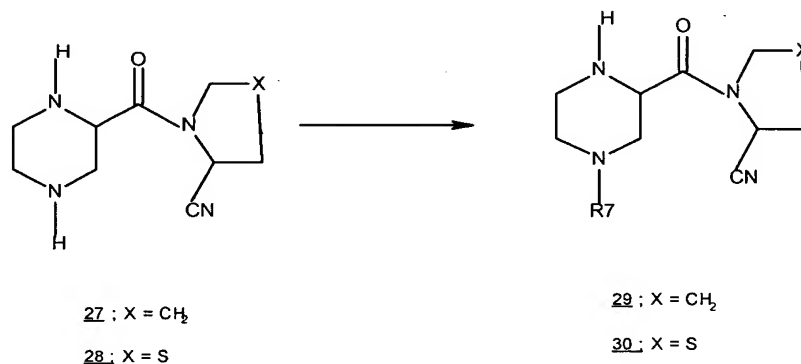
- b) deprotecting compounds obtained in step(a) using trifluoroacetic acid in aprotic

solvent at 0-30°C for 1-4 hrs to give compound of formula 27 or 28 as trifluoroacetate salt, respectively,



5

c) reacting of compound of formula no. 27 or 28 with appropriate alkylhalide in aprotic solvent in presence of base to give compound of formula 29 or 30 and



10

d) optionally purifying by reprotecting them at N-1 of the piperazine ring using Boc-carbonate followed by deprotection of Boc group in aprotic solvents using trichloroacetic acid at 0-35°C for 1-4 hrs to yield desired product as bis-trifluoroacetate salt.

15

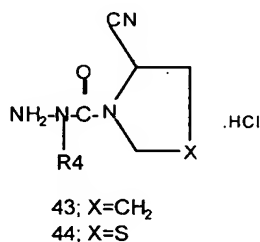
54. The process as claimed in claim 53, wherein in step (a) the said aprotic solvent used is selected from acetonitrile, tetrahydrofuran, dimethylformamide, dioxane, dichloromethane, diethylether or chloroform, in step (b) the said aprotic solvent used is selected from acetonitrile, tetrahydrofuran, dimethylformamide, dioxane, dichloromethane, chloroform or diethylether, in step (c) the said aprotic solvent used

20

is selected from acetonitrile, tetrahydrofuran, dimethylformamide or dioxane and the base used is selected from tertiaryamine, pyridine or alkali carbonates and in step (d) the said aprotic solvent used is selected from acetonitrile, tetrahydrofuran, dimethylformamide, dioxane, dichloromethane, diethylether or chloroform.

- 5 55. The process as claimed in claim 54 wherein in step (a) of the process said aprotic solvent used is tetrahydrofuran or dichloromethane, in step (b) of the process said aprotic solvent used is tetrahydrofuran or acetonitrile, in step (c) of the process said aprotic solvent used is tetrahydrofuran or acetonitrile and said base used is triethylamine or potassium carbonate and in step (d) of the process the said aprotic solvent used is acetonitrile.

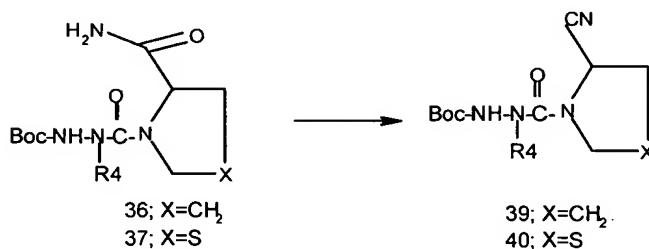
56. A process for preparation of compounds of formula 43 and 44



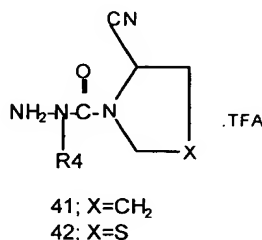
15 wherein

R4 has the same meaning as defined in claim 1,
comprising steps of :

- 20 a) reacting tert-butyloxycarbonyl protected formula 36 or 37 with trifluoroacetic anhydride in aprotic solvent at 10-40⁰C for 2-4 hrs to give corresponding cyano compound of formula 39 or 40,



b) deprotecting compounds obtained in step (a) using trifluoroacetic acid in an aprotic solvent at 5 – 40°C for 0.25 - 2 hrs to give compound of formula no. 41 or 42 as trifluoroacetate salt respectively and

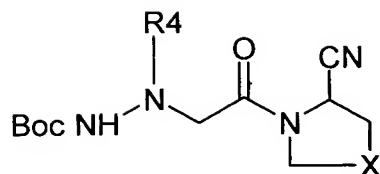


c) purifying the compound so obtained by neutralizing with an aqueous alkali followed by purification of free base thus obtained by column chromatography and then converting the product thus obtained into a pharmaceutically acceptable hydrochloride salt by treating with methanolic hydrochloride at 0 – 20°C for 0.5 - 2 hrs.

57. The process as claimed in claim 56, wherein in step (a) of the process the said aprotic solvent as used is selected from acetonitrile, tetrahydrofuran, dimethylformamide, dioxane, dichloromethane, diethyl ether or chloroform, in step 15 (b) of the process the said aprotic solvent as used is selected from dichloromethane, diethylether, dioxane, tetrahydrofuran, acetonitrile, and in step (c) of the process the said aqueous alkali solvent as used is aqueous sodium bicarbonate and wherein steps(a) and (b) of the process are carried out at 25°C and 20°C respectively.

58. The process as claimed in claim 57 wherein in step (a) and (b) the said aprotic 20 solvent is tetrahydrofuran.

59. A process for the preparation of compounds of formula 11 or 12.



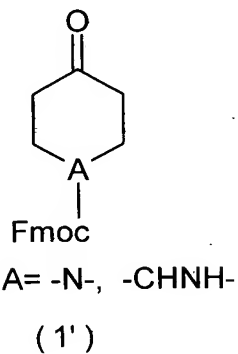
11; X = CH₂

12; X = S

where R⁴ and X are as defined in Claim 1, which comprises the steps of :

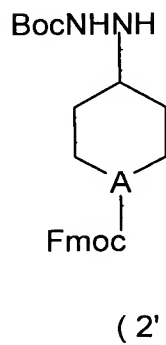
5

(a) reacting a N-protecting cyclic ketone (1¹)



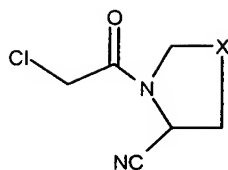
with BocNHNH₂ in alcoholic solvents under heating for 1-8 hours followed by reduction in alcoholic solvent at 0-35°C to obtain (2¹) N-2-substituted tert-butyl carbazate.

10



(b) coupling of said carbazate derivative with 3 or 4

15

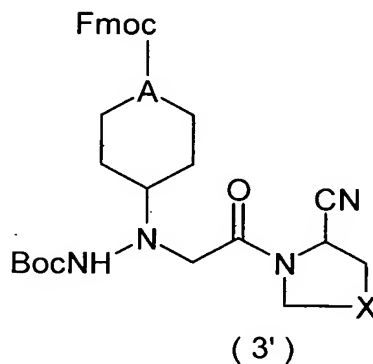


(3) ;X=CH₂

(4) ;X=S

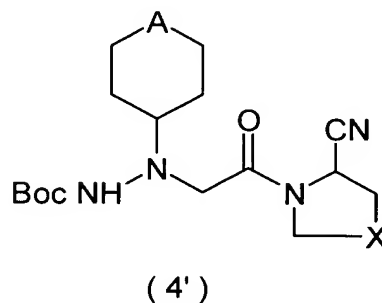
in presence of base and in an organic solvent under heating 20 - 50 hrs. to obtain coupled product (3¹).

5



(c) deprotection of 3¹ obtained in above step (b) is carried out by using a base, at 10- 40°C for 1- 4 hrs. to obtain compound (4¹)

10



(d) functionalizing the deprotected product (4¹) to get compound of formula 11 or 12 with the substituent R⁴ as desired.

15

60. The process as claimed in claim 59, wherein (i) protection of cyclic ketone (i) in step (a) is Fmoc protection (ii) coupling reaction in step(b) is optionally carried out in presence of potassium iodide and (iii) the base used in step (c) is morpholine.